

## HEALTHY PEOPLE 2010:

Health Indicators for San Diego County
A Decade of Progress

**AUGUST 2013** 







## Healthy People 2010: Health Indicators for San Diego County A Decade of Progress

County of San Diego
Health and Human Services Agency
Public Health Services

August 2013

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#### SAN DIEGO COUNTY

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#### SAN DIEGO COUNTY

## Introduction

Healthy People 2010 was a comprehensive series of health promotion and disease prevention objectives for the nation to achieve during the first 10 years of this century. The document was designed to be used by states, communities, organizations, groups, and individuals to help guide the planning and development of programs to improve the health of the population.

*Healthy People 2010* identified a variety of public health priorities, and aimed to achieve two overarching goals:

- 1) increase quality and years of healthy life for individuals of all ages, and
- 2) eliminate health disparities between different groups of the population.

Each of 28 focus areas were developed into chapters by Federal agencies through consultation with subject area experts, and built on the most recent available scientific knowledge. Specifically, concise goals in each of the chapters address the overarching goals. Precisely defined objectives were written such that they would be specific and measurable in order to monitor progress over time. The objectives were revisited in 2005 during the Midcourse Review. The purpose of the review was to ensure that the objectives were still relevant and that data or information was available to measure progress. As a result, many of the original objectives were deleted.

To follow these objectives locally, the *Healthy People 2010: Health Indicators for San Diego County* was prepared by the County of San Diego, Public Health Services Division of the Health & Human Services Agency. This document measures local progress toward reaching each of the *Healthy People 2010* objectives. It is designed for local agencies, organizations, groups, services, and individuals who have an interest in improving the health of residents of San Diego County. For each objective, local data are provided, where available, to compare to the national baseline and target.

Local data were matched to the *Healthy People* objectives, when possible. When local indicators were not directly comparable to the objective, the closest available data were used as proxies in order to measure progress toward the objective. A detailed description of any differences between the *Healthy People* objective and the available local data is included when appropriate.

Healthy People 2010: Health Indicators for San Diego County is a comprehensive document presenting a wide range of local data. These data are meant to be used to monitor and track the health of residents, to increase the quality and years of healthy life, and to eliminate existing disparities in the health of different populations. The next Healthy People At-A-Glance and Full Report will begin to monitor Healthy People 2020 objectives. For additional local health and demographic data, please go to www.sdhealthstatistics.com.

#### SAN DIEGO COUNTY

Chapter 1

## Access to Quality Health Services

Healthy People 2010 Goal: Improve access to comprehensive, high-quality health care services

Access to quality health services across the entire continuum of care is essential to the physical, mental and emotional well-being of an individual. Easily accessible, high-quality care increases a person's ability to improve his or her own health. By making regular use of medical care, a person can expect improved health outcomes and a better quality of life.

Financial, structural and personal barriers to receiving services include being unable to afford health insurance, lack of health care facilities nearby, and cultural or language differences. Special populations that face difficulties in accessing skilled care include physically or mentally disabled people, the elderly, chronically ill individuals, and HIV-infected persons. People who are less likely to have a usual source of care are minorities, young adults, individuals with less than a high school education, and uninsured persons.<sup>1</sup>

Having health insurance allows for sustained access to a medical provider who can provide a broad range of services, from the treatment of acute illness and injury to preventive services such as immunizations and blood pressure screening. The inability to pay for health insurance if it is not employer provided poses a barrier to accessing quality health services.

As a result, vast disparities exist between those who have health insurance and those who do not. In 2009, data from the National Health Interview Survey (NHIS) showed that 58.5 million people - 19.4% of the population - had been uninsured for at least part of the year prior to the interview.<sup>2</sup> Uninsured children and adults under the age of 65 years are less likely to have a regular source of health care or to have visited a health care provider recently than their insured counterparts,<sup>2</sup> leading to poor health outcomes.

The four major components of the health care system include clinical preventive care, primary care, emergency services, and long-term and rehabilitative care.

## Importance of Health Care System Components

- Clinical services offer disease prevention at early, treatable stages.
- Primary care provide integrated, accessible health care services.
- Emergency Services access to first-contact care.
- Long-Term Care and Rehabilitative Servicesoffer services to improve functioning and activities of daily living.

## Clinical Preventive Care

Clinical preventive services refer to prevention or health promotion activities performed in a health care setting, and can help to improve outcomes for the major causes of disease and death. Effective clinical preventive services address both disease prevention (primary prevention) and disease detection at early, treatable stages (secondary prevention). Examples of these services include regular physical examinations and screening tests, mammograms, colorectal exams, and immunizations, among others. Improving access to preventive services means addressing barriers that involve the patient, provider, and system of care.

#### Patient barriers include:

- Lack of knowledge
- Skepticism about effectiveness
- No usual source of primary care
- Lack of money/health insurance

#### Provider barriers include:

- Limited time
- Lack of prevention training
- · Lack of perceived effectiveness
- Environments that fail to facilitate prevention

#### System barriers include:

- Lack of resources or attention devoted to prevention
- Inadequate reimbursement
- Lack of systems to track quality

Increasing recognition of the critical role of preventive services and improved collection and reporting of data on the delivery of recommended services will help promote the necessary shift in health care to a prevention oriented system.<sup>1</sup>

#### **HP 2010 Indicators**

### 1-1. Increase the proportion of persons with health insurance.

Target: 100 percent (age-adjusted).

**National Baseline:** 83 percent of persons under age 65 years were covered by health insurance in 1997 (age adjusted to the year 2000 standard population).

**National Data source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** In San Diego County, according to the 2009 California Health Interview Survey, 86.1% of persons under age 65 years had health insurance.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

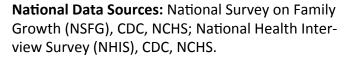
## 1-2. Objective deleted by Federal Government at midcourse review.



## 1-3. Increase the proportion of persons appropriately counseled about health behaviors.

#### **Target and National Baseline:**

Objective	Increase in Counseling on Health Behaviors Among Persons at Risk	1995 or 2001 Baseline	2010 Target
	With a Physician Visit in the Past Year	Percent	
1-3a.	Physical activity or exercise (adults aged 18 & older)	45 (2001)	54
1-3b.	Diet and nutrition (adults aged 18 & older)	43 (2001)	56
1-3c.	Smoking cessation (adult smokers aged 18 & old- er)	66 (2001)	72
1-3d.	Risky drinking (adults aged 18 & older).	11 (2001)	17
1-3f.	Unintended pregnancy (females aged 15-44)	19 (1995)	50
1-3g.	Prevention of sexually transmitted diseases (males aged 15-49; fe- males aged 15-44)	Not Developed	
1-3h.	Management of meno- pause (females aged 45- 57)	40 (2001)	42



**Local Data:** San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect people ages 18 years and older. San Diego County data reflect only those aged 12-17 years.

- **1-3a:** In San Diego County, according to the 2009 California Health Interview Survey, 61.5% of adolescents aged 12 through 17 years discussed exercise or physical activity at their last physical exam.
- **1-3b:** In San Diego County, according to the 2009 California Health Interview Survey, 63.9% of adolescents aged 12 through 17 years discussed nutrition at their last physical exam.
- 1-3c, 1-3d, 1-3f, 1-3g, 1-3h: No local data available
- **1-3e:** Objective deleted at midcourse review.

Local Data Source: UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).



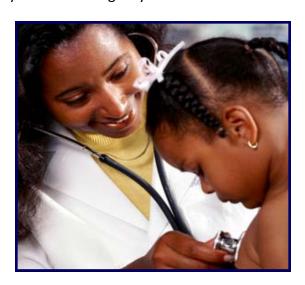




## Primary Care

Primary care generally refers to medical care provided during a patient's first contact with the medical system. More specifically, the Institute of Medicine defines primary care as "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community."<sup>3</sup>

General practitioners and emergency departments are common sites for primary care. However, having a primary care provider who specializes in general and family practice as a usual source of care ensures greater benefits than using the emergency department on an as-needed basis. This ensures greater continuity of care, more comprehensive health management, and appropriate referrals to specialty care. Through primary care, individuals are able to better manage their health and are less likely to need emergency services.



#### **HP 2010 Indicators**

## 1-4. Increase the proportion of persons who have a specific source of ongoing care.

#### **Target and National Baseline:**

Objective	Increase in Persons With Specific Source of Ongo- ing Care	1998 Baseline	2010 Target
		Percent	
1-4a.	All ages	87	96
1-4b.	Children and youth aged 17 years and under	93	97
1-4c.	Adults 18 years and older	85	96

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 reflect persons with a specific source of ongoing care. San Diego County data reflect those who have a usual place to go.

**1-4a:** In San Diego County, according to the 2009 California Health Interview Survey, 89.7% of persons of all ages had a usual place to go when sick or needed health advice.

**1-4b:** In San Diego County, according to the 2009 California Health Interview Survey, 93.8% of children and youth had a usual place to go when sick or needed health advice.

**1-4c:** In San Diego County, according to the 2009 California Health Interview Survey, 88.3% of adults ages 18 years and older had a usual place to go when sick or needed health advice.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

## 1-5. Increase the proportion of persons with a usual primary care provider.

Target: 85 percent.

National Baseline: 77 percent of the population had

a usual primary care provider in 1996.

National Data Source: Medical Expenditure Panel

Survey (MEPS), AHRQ.

Local Data: No local data available.

# 1-6. Reduce the proportion of families that experience difficulties or delays in obtaining health care or do not receive needed care for one or more family members.

Target: 7 percent.

**National Baseline:** 12 percent of families experienced difficulties or delays in obtaining health care or did not receive needed care in 1996.

**National Data Source:** Medical Expenditure Panel Survey (MEPS), AHRQ.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 reflect all family members with difficulties or delays in obtaining needed health care. San Diego County data reflect only children and youth ages 0-17 years.

In San Diego County, according to the 2009 California Health Interview Survey, 4.6% of children and youth aged 0 through 17 years experienced difficulties or delays in obtaining health care or did not receive needed care.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 7/2012).

# 1-7. (Not Developed) Increase the inclusion of sentinel core competencies in health promotion and disease prevention in health professions training.

#### Part 1:

Objective	Increase in percent of LCME- accredited medical schools that include the competency	1998 Baseline	2010 Target
	in required courses, for Med- ical Doctor degree (MD)	Percent	
1-7a.	Counseling for health pro- motion and disease preven- tion	79	ND
1-7b.	Cultural diversity	87	ND

#### **Target and National Baseline:**

**National Data Source:** Liaison Committee on Medical Education (LCME) Annual Medical School Questionnaire.

Local Data: No local data available.

\*ND: Not Developed.

#### Part 2:

Increase in percent of COCA- accredited medical schools that include the competency in required courses, Osteo- pathic medical doctor (D.O.	2003-04 Baseline	2010 Target	
	degree)	Percent	
	Counseling for health pro- motion and disease preven- tion	95	ND
1-7d.	Cultural diversity	35	ND

#### **Target and National Baseline:**

**National Data Source:** Annual Report on Osteopathic Medical Education, American Association of Colleges of Osteopathic Medicine.

**Local Data:** No local data available.

\*ND: Not Developed.

Part 3: **Target and National Baseline:** 

Objective	Increase in percent of schools of nursing that include the competency in required courses, Baccalaureate-level nurse (B.S.N. degree)	1999 Baseline	2010 Target
		Percent	
1-7e.	Counseling for health pro- motion and disease preven- tion	91	ND
1-7f.	Cultural diversity	98	ND

National Data Source: American Association of Colleges of Nursing Survey on Women's Health in the Entry-level Baccalaureate Nursing School Curriculum.

Local Data: No local data available.

\*ND: Not Developed.

Part 4:

Objective	Increase in percent of NP tracks in schools of nursing Objective that include the competency in required courses, Nurse Practitioner (N.P. degree)	2000-01 Baseline	2010 Target
		Percent	
	Counseling for health pro- motion and disease preven- tion	94	ND
1-7h.	Cultural diversity	97	ND

#### **Target and National Baseline:**

National Data Source: Collaborative Curriculum Survey, American Association of Colleges of Nursing & National Organization of Nurse Practitioner Faculties. Master's Level Nurse Practitioner Educational Programs.

Local Data: No local data available.

\*ND: Not Developed.

asso nurs deg	ciated health proj ing field, increase rees awarded to n	fessions, allied and fession fields, and the the proportion of all nembers of un- and ethnic groups.

Objective	Increase in Degrees Award- ed to Underrepresented Populations	1996-97 Baseline (unless noted)	2010 Target
		Perce	ent
sions field	ofessions, allied and associa s (For the baselines, health p dentistry, pharmacy, and pu	orofessions	include
1-8a.	American Indian or Alaska Native	0.6	1.0
1-8b.	Asian or Pacific Islander	16.3	4.0*
1-8c.	Black or African American	6.5	13.0
1-8d.	Hispanic or Latino	5.2	12.0
Nursing			
1-8e.	American Indian or Alaska Native	0.7 (1995-96)	1.0
1-8f.	Asian or Pacific Islander	3.2 (1995-96)	4.0
1-8g.	Black or African American	6.9 (1995-96)	13.0
1-8h.	Hispanic or Latino	3.4 (1995-96)	12.0
Medicine			
1-8i.	American Indian or Alaska Native	0.7	1.0
1-8j.	Asian or Pacific Islander	16.0	4.0*
1-8k.	Black or African American	7.0	13.0
1-8I.	Hispanic or Latino	5.9	12.0
Dentistry			
1-8m.	American Indian or Alaska Native	0.5	1.0
1-8n.	Asian or Pacific Islander	19.5	4.0*
1-8o.	Black or African American	5.1	13.0
1-8p.	Hispanic or Latino	5.3	12.0
Pharmacy	,		
1-8q.	American Indian or Alaska Native	0.4	1.0
1-8r.	Asian or Pacific Islander	17.5	4.0*
1-8s.	Black or African American	5.7	13.0
1-8t.	Hispanic or Latino	3.6	12.0

<sup>\*</sup>The Asian or Pacific Islander population group has exceeded its target, which represents the minimum target based on this group's estimated proportion of the population.

National Data Sources: Survey of Predoctoral Dental Educational Institutions, American Dental Association; Profile of Pharmacy Students, American Association of Colleges of Pharmacy; AAMC Data Book: Statistical Information Related to Medical Schools and Teaching Hospitals, Association of American Medical Colleges; Annual Data Report, American Association of Schools of Public Health; Annual Survey of RN (Registered Nurse) Programs, National League for Nursing, Center for Research in Nursing Education and Community Health.

Local Data: No local data available.

1-9. Reduce hospitalization rates for three ambulatory-care-sensitive conditions—pediatric asthma, uncontrolled diabetes, and immunization-preventable pneumonia and influenza.

#### **Target and National Baseline:**

	Reduction in Hospitaliza- tions for Ambulatory-Care-	1996 Baseline	2010 Target			
Objective	Sensitive Conditions	Admissions per				
1-9a.	Pediatric asthma—persons	23.0	17.3			
1-9b.	Uncontrolled diabetes— persons aged 18 to 64 years	7.2	5.4			
1-9c.	Immunization-preventable pneumonia or influenza— persons aged 65 years and	10.5	7.9			

**National Data Source:** Healthcare Cost and Utilization Project (HCUP), AHRQ.

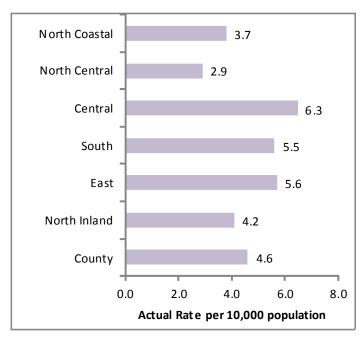
#### Local Data:

**1-9a:** In San Diego County, the rate of hospitalizations due to pediatric asthma was 11.1 per 10,000 for persons aged 0 through 17 years, in 2009.

**1-9b:** In San Diego County, the rate of hospitalization due to uncontrolled diabetes was 4.6 per 10,000 for persons ages 18 through 64 years, in 2009.

**1-9c:** In San Diego County, the rate of hospitalizations due to immunization-preventable pneumonia or influenza was 4.5 out of 10,000 for persons aged 65 years and older in 2009.

Figure 1. Uncontrolled Diabetes Hospitalizations by Region of Residence, Ages 18-64 Years, 2009



<sup>\*</sup> Source: Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010.

**Local Data Source:** Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 12/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

## **Emergency Services**

Emergency services are an important component of access to health care in the United States, bringing timely, essential prehospital medical treatment to patients. The most commonly used sources of emergency care include prehospital emergency medical services (EMS), poison control centers (PCCs), and hospital-based emergency departments (EDs).<sup>1</sup>

For the most critically injured or ill patients, emergency services serve as the link between the onset of symptoms and treatment in a hospital. Delays in these services can lead to death or long-term disability.<sup>1</sup>

For patients with less serious health problems, emergency services may serve as the first contact with the medical system. This initial contact can provide an opportunity for referral to appropriate primary or specialty care.<sup>1</sup>

Since the Emergency Medical Treatment and Active Labor Act (EMTALA) was enacted in 1986, <sup>4</sup> EDs are required to evaluate and appropriately stabilize anyone seeking care, regardless of socioeconomic, health or insurance status. Thus, EDs have become an even more crucial component of the healthcare system.

Emergency services are also more regularly serving as a source of primary prevention by providing preventive care associated with the treatment of more acute problems.

#### **HP 2010 Indicators**

# 1-10. Reduce the proportion of persons who delay or have difficulty in getting emergency medical care.

Target: 1.5 percent (age-adjusted).

**National Baseline:** 2.4 percent of persons ages 18 years and older who delayed, had trouble, or were unable to get care from a hospital emergency room during the past 12 months. (2001).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 1-11. Increase the proportion of persons who have access to rapidly responding prehospital emergency medical services.

#### **Target and National Baseline:**

Ohiostivo	Increase the proportion of persons covered by the	2002 Baseline	2010 Target
	specified prehospital emer- gency medical service	Perd	cent
1-11a.	Basic life support	91	100
1-11b.	Advanced life support	77	85
1-11c.	Helicopter	75	83
1-11d.	Prehospital access to online medical control	78	86
1-11e.	Basic 9-1-1	74	81
1-11f.	Enhanced 9-1-1	72	79
1-11g.	Two-way communication between hospitals	68	75

**National Data Source:** National Assessment of State Trauma System Development, Emergency Medical Services Resources, and Disaster Readiness for Mass Casualty Events, Health Resources and Services Administration (HRSA).

#### Local Data:

- **1-11a:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes basic life support.
- **1-11b:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes advanced life support.
- **1-11c:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes helicopter services.
- **1-11d:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes prehospital access to online medical control.
- **1-11e:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes basic 9-1-1.
- **1-11f:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes enhanced 9-1-1.
- **1-11g:** In San Diego County, according to Emergency Medical Services, 100% of persons had access to rapidly responding prehospital emergency medical services that includes two-way communication between hospitals.

**Local Data Source:** County of San Diego, Emergency Medical Services (EMS).

# 1-12. Establish a single toll-free telephone number for access to poison control centers on a 24-hour basis throughout the United States.

**Target:** 100 percent.

**National Baseline:** 15 percent of poison control centers shared a single toll-free number in 1999.

**National Data Source:** American Association of Poison Control Centers Survey, U.S. Poison Control Centers.

**Local Data:** In San Diego County, according to Emergency Medical Services, a single toll-free number for access to poison control centers exists on a 24-hour basis. The California Poison Action Line number, which is a service of the California Poison Control System, is 1-800-222-1222.

# 1-13. Increase the number of Tribes, States, and the District of Columbia with State-level trauma system facilitation and coordination of Statewide defined criteria.

#### **Target and National Baseline:**

Objective		2002 Baseline	2010 Target
		Nur	mber
1-13a.	Presence of active multi- disciplinary trauma adviso- ry committee	29	51
1-13b.	Defined process for designating trauma centers	34	51
1-13c.	Use of American College of Surgeons (ACS) standards for trauma center verification	34	51
1-13d	Use of on-site survey teams for trauma center verification	36	51
1-13e	Pre-hospital triage criteria allowing for the bypass of non-designated hospitals	27	51
1-13f	Standardized inter- hospital transfer protocols	23	51

National Data Source: Federal Trauma-Emergency Medical Services System Program Survey, Health Resources Services Administration (HRSA).

Objective		2002 Baseline	2010 Target
		Nur	nber
1-13g	Policies describing the types of patients who should be transferred	23	51
1-13h	Process to monitor and evaluate trauma system outcomes	30	51
1-13i	Trauma system plan	32	51

#### Local Data:

**1-13a:** In San Diego County, according to Emergency Medical Services, there is an active multidisciplinary trauma advisory committee.

**1-13b:** In San Diego County, according to Emergency Medical Services, there is a defined process for trauma center design.

**1-13c:** In San Diego County, according to Emergency Medical Services, American College of Surgeons (ACS) standards are used to verify trauma centers.

**1-13d:** In San Diego County, according to Emergency Medical Services, on-site survey teams are used to verify trauma centers.

**1-13e:** In San Diego County, according to Emergency Medical Services, prehospital triage criteria allow for the bypass of non-designated hospitals.

**1-13f:** In San Diego County, according to Emergency Medical Services, standardized inter-hospital transfer protocols are used.

**1-13g:** In San Diego County, according to Emergency Medical Services, policies describing the types of patients who should be transferred were utilized.

**1-13h:** In San Diego County, according to Emergency Medical Services, a process to monitor and evaluate trauma system outcomes exist.

**1-13i:** In San Diego County, according to Emergency Medical Services, a trauma system plan is utilized.

1-14. Increase the number of States and the District of Columbia that have implemented guidelines for pre-hospital and hospital pediatric care.

1-14a: Increase the number of States and the District of Columbia that have implemented statewide pediatric protocols for online medical direction.

Target: 51.

**National Baseline:** 18 States had implemented statewide pediatric protocols for online medical direction in 1997.

**National Data Source:** Emergency Medical Services for Children Annual Grantees Survey, HRSA.

**Local Data:** In San Diego County, according to Emergency Medical Services, pediatric protocols for online medical direction have been implemented.

1-14b. Increase the number of States and the District of Columbia that have adopted and disseminated pediatric guidelines that categorize acute care facilities with the equipment, drugs, trained personnel, and other resources necessary to provide varying levels of pediatric emergency and critical care.

Target: 51.

**National Baseline:** 11 States had adopted and disseminated pediatric guidelines that categorize acute care facilities with the equipment, drugs, trained personnel, and other resources necessary to provide varying levels of pediatric emergency and critical care in 1997.

**National Data Source:** Emergency Medical Services for Children Annual Grantees Survey, HRSA.

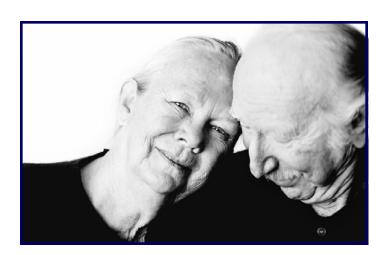
**Local Data:** In San Diego County, according to Emergency Medical Services, emergency pediatric guidelines have been adopted and disseminated.

# Long-Term Care and Rehabilitative Services

Long-term care and rehabilitative services are a necessary component of access to quality health care for individuals possessing physical or mental conditions that limit their ability to care for themselves. This population includes people of all ages who need assistance performing activities of daily living, such as personal care or other routine activities.

The goals of long-term care and rehabilitative services are to improve functioning, maintain existing functioning, return individuals to their maximum level of functioning, or slow the deterioration of functioning.

Long-term care and rehabilitative services include nursing home care, home health care, adult day care, assisted living, and hospice care. Many individuals have limited access to these services due to financial barriers and the limited availability of specific services.



#### **HP 2010 Indicators**

1-15. Reduce the proportion of adults with long-term care needs who do not have access to the continuum of long-term care services.

#### **Target and National Baseline:**

	Reduce percent of persons aged 65 years and older with long-term care needs who needed the specific care listed during the past 12 months	2001 Baseline	2010 Target		
	and did not receive this care.	Percent*			
1-15a.	Home health care	9.6	7.7		
1-15b.	Adult day care	2.9	2.3		
1-15c.	Assisted living	3.3	1.8		
1-15d.	Nursing home care	1.1	0.9		

<sup>\*</sup>Percent is age adjusted.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available

## 1-16. Reduce the proportion of nursing home residents with a current diagnosis of pressure ulcers.

**Target:** 8 diagnoses per 1,000 residents.

**National Baseline:** 16 diagnoses of pressure ulcers per 1,000 nursing home residents were made in 1997.

National Data Source: National Nursing Home Survey (NNHS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect all nursing home residents as a rate per 1,000 residents. San Diego County data reflect pressure ulcers as an average percent by risk and length of stay.

In San Diego County, 13% of high-risk, long-stay residents had pressure ulcers.

In San Diego County, 3% of low-risk, long-stay residents had pressure ulcers.

In San Diego County, 20% of short-stay residents had pressure ulcers.

**Local Data Source:** Nursing Home Compare, www.medicare.gov/NHCompare/home.asp (accessed 2/10/09).

#### References

- 1 U.S. Department of Health and Human Services. "Access to Quality Health Services" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 1 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="http://www.healthypeople.gov/2010/Document/pdf/">http://www.healthypeople.gov/2010/Document/pdf/</a> Volume1/01Access.pdf , (Accessed August 28, 2012).
- 2 Centers for Disease Control and Prevention, "Health insurance coverage: Early release of estimates from the NHIS, 2009", <a href="http://www.cdc.gov/nchs/data/nhis/earlyrelease/">http://www.cdc.gov/nchs/data/nhis/earlyrelease/</a> insur201006.pdf, June 2010, (Accessed July 16, 2012).
- 3 Institute of Medicine (IOM). Donaldson MS, Yordy KD, Lohr KN, eds. Primary Care In: America's Health in a New Era. Washington DC: National Academy Press, 1996.
- 4 Centers for Medicare & Medicare Services, "EMTALA Overview", <a href="http://www.cms.hhs.gov/emtala/">http://www.cms.hhs.gov/emtala/</a>, November 2008, (Accessed September 5, 2012).

#### SAN DIEGO COUNTY

Chapter 2

# Arthritis, Osteoporosis, and Chronic Back Conditions

Healthy People 2010 Goal: Prevent illness and disability related to arthritis and other rheumatic conditions, osteoporosis, and chronic back conditions.

Arthritis, osteoporosis and other chronic back conditions are musculoskeletal disorders that greatly impact ones' quality of life. The prevention and treatment of these conditions are key to limiting the associated pain and disability.

As the baby-boomers age, the number of people aged 65 years and older will increase dramatically. Current demographic trends indicate that people will need to continue working at older ages, which increases the adverse social and economic consequences of activity limitation and disability.<sup>1</sup>



### **Arthritis**

Arthritis is a term that means joint inflammation, and is used to describe more than 100 rheumatic diseases and conditions affecting the joints, tissues surrounding the joint, and other connective tissue. It is the most common cause of disability in the United States, affecting one out of every five adults - or more than 46 million individuals.<sup>2</sup>

Arthritis limits the independence of affected persons and disrupts the lives of family members. As a greater proportion of the population suffers from arthritis due to the increasing number of older adults, more emphasis will be placed on improving quality of life.

Arthritis affects people of all ages and racial/ethnic groups, but is more common among women and older adults. Other risk factors include lower levels of education and income, obesity, joint injuries, infections, and certain occupations.

For people with arthritis, physical activity and weight management has been shown to improve function,

decrease pain, and delay disability. Avoiding repetitive motions due to sports or occupational activities will reduce the risk of developing osteoarthritis. While there is no cure for the disease, regular doctor visits to help manage the condition can decrease pain and improve function.



#### **HP 2010 Indicator**

## 2-1. Reduce the mean level of joint pain among adults with doctor-diagnosed arthritis.

**Target:** 5.3 mean pain level response (ageadjusted).

**National Baseline:** 5.6 was the mean pain level response among persons aged 18 years and older with doctor-diagnosed arthritis in 2002 who reported joint pain in the past 30 days (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 2-2. Reduce the proportion of adults with doctor-diagnosed arthritis who experience a limitation in activity due to arthritis or joint symptoms.

Target: 33 percent (age-adjusted).

**National Baseline:** 36 percent of adults aged 18 years and older with doctor-diagnosed arthritis experienced a limitation in activity due to arthritis or joint symptoms in 2002 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 2-3. Reduce the proportion of all adults with doctor-diagnosed arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence.

Target: 1.5 percent (age-adjusted).

**National Baseline:** 2.1 percent of adults aged 18 years and older with doctor-diagnosed arthritis experienced difficulty performing two or more personal care activities in 2002 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 2-4. Increase the proportion of adults with doctor-diagnosed arthritis who receive health care provider counseling.

#### **Target and National Baseline:**

Objective	Increase the proportion of adults with doctor- diagnosed arthritis who re- ceive health care provider	2002 Baseline	2010 Target			
	counseling.	Percent				
2-4a.	For weight reduction among overweight and obese persons.	35	46			
2-4b.	For physical activity or exercise.	52	67			

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.



# 2-5. Reduce the impact of doctor-diagnosed arthritis on employment in the workingaged population.

#### **Target and National Baseline:**

Ohiective	Reduce the impact of doctor- diagnosed arthritis on em- playment in the working-							
Objective	ployment in the working- aged population.	Percent						
2-5a.	Reduction in the unemploy- ment rate among adults with doctor-diagnosed arthritis	33	27					
2-5b.	Reduction in the proportion of adults with doctor-diagnosed arthritis who are limited in their ability to work for pay due to arthritis.	30	23					

<sup>\*</sup> Age adjusted to the year 2000 standard population.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 2-6. Eliminate racial disparities in the rate of total knee replacements among persons aged 65 years and older.

Target: 0 percent.

**National Baseline:** In 2002, 34 percent difference between white and black rates of total knee replacements among persons aged 65 years and older.

National Data Source: Medicare Part A and B, CMS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 objective is based on Medicare data. San Diego County data include all insurance types.

In San Diego County, hospitalization rates due to knee replacements were 19.3% lower among Blacks compared to Whites aged 65 years and older, in 2009.

Local Data Source: Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010.

Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 12/2011.

# 2-7. Increase the proportion of adults with chronic joint symptoms who have seen a health care provider for their symptoms.

Target: 73 percent.

**National Baseline:** 70 percent of adults aged 18 years and older who reported chronic joint symptoms saw a health care provider for their symptoms in 2002.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

2-8. Increase the proportion of adults with doctor-diagnosed arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition.

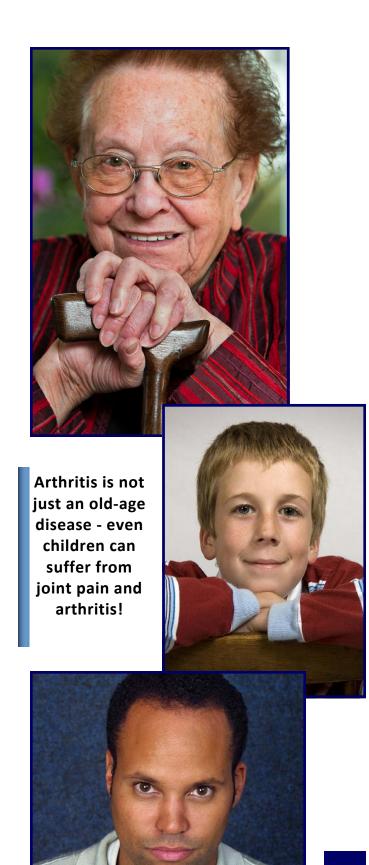
Target: 13 percent.

**National Baseline:** 11 percent of adults aged 18 years and older with doctor-diagnosed arthritis had effective, evidence-based arthritis education as an integral part of the management of their condition in 2002.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.



## Osteoporosis

Osteoporosis is a disease characterized by low bone mass and the deterioration of bone tissue. This leads to fragile bones and an increased risk of fracture, particularly in the wrist, vertebrae and hip.<sup>3</sup> Approximately 10% of persons ages 50 years and older in the United States have osteoporosis.

Women are at greater risk than men for the disease; roughly one in six women are at risk, compared to one in thirty-three men. Risk also increases with age, is higher in whites, postmenopausal women, people with small frames, individuals who are physically inactive, and those with a diet low in calcium and vitamin D.

Several lifestyle changes can halt the progression of osteoporosis. Regular exercise, especially weight bearing activities, and an increased intake of calcium and vitamin D can help strengthen muscle and increase bone mass.

Osteoporosis is preventable and treatable, but many individuals are not diagnosed until they sustain a fracture. People at risk should talk to their doctor about screening for bone loss.



#### **HP 2010 Indicator**

## 2-9. Reduce the proportion of adults with osteoporosis.

Target: 8 percent (age-adjusted).

**National Baseline:** 10 percent of adults aged 50 years and older had osteoporosis as measured by low total femur bone mineral density (BMD) in 1988–94 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

## 2-10. Reduce the proportion of adults who are hospitalized for vertebral fractures associated with osteoporosis.

**Target:** 14.0 hospitalizations per 10,000 adults aged 65 years and older (age-adjusted).

**National Baseline:** 17.5 hospitalizations per 10,000 adults aged 65 years and older were for vertebral fractures associated with osteoporosis in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** San Diego County are not directly comparable to the Healthy People objective; San Diego County data reflect only the primary diagnosis. Healthy People reflect any diagnosis (primary or other).

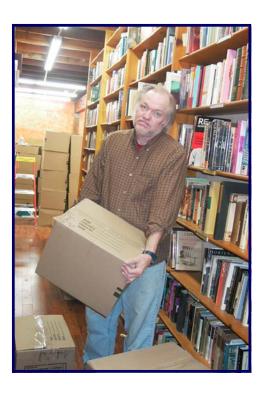
In San Diego County, the rate of hospitalizations for vertebral fractures associated with osteoporosis was 10.9 per 10,000 adults aged 65 years and older in 2009, age-adjusted.

**Local Data Source:** Hospital Discharge Data, (CA OSHPD), County of San Diego, HHSA,EISB; SANDAG, Current Population Estimates, 10/2010.

### Chronic Low Back Pain

Back pain is common, affecting 15 to 45 percent of people each year. Up to 85 percent of people have back pain at some point in their lives. Back pain ranges from a dull, constant ache to a sudden, sharp pain, leaving a person incapacitated. Chronic back pain is typically pain lasting for more than 7 to 12 weeks, pain lasting beyond the expected period of healing, or frequently recurring back pain.

Work related risk factors include heavy physical work, lifting, forceful movements, whole body vibration and awkward postures. Other risk factors include those that cannot be modified, such as age, gender, body type, personal history and spinal abnormalities, as well as modifiable risk factors including weight, physical fitness, smoking, lumbar flexibility, trunk muscle strength, and hamstring elasticity.<sup>1</sup>



#### **HP 2010 Indicator**

### 2-11. Reduce activity limitation due to chronic back conditions.

**Target:** 25 adults per 1,000 population aged 18 years and older (age-adjusted).

**National Baseline:** 32 adults per 1,000 population aged 18 years and older experienced activity limitation due to chronic back conditions in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

#### References

- 1 U.S. Department of Health and Human Services. "Arthritis, Osteoporosis, and Chronic Back Conditions" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 1 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="https://www.healthypeople.gov/2010/Document/pdf/Volume1/02Arthritis.pdf">https://www.healthypeople.gov/2010/Document/pdf/Volume1/02Arthritis.pdf</a> (Accessed August 28,2012).
- 2 Centers for Disease Control and Prevention, "Arthritis", <a href="http://www.cdc.gov/arthritis/">http://www.cdc.gov/arthritis/</a>, July 2012, (Accessed September 5, 2012).
- 3 Centers for Disease Control and Prevention, "Nutrition for Everyone: Calcium and Bone Health", <a href="http://www.cdc.gov/nutrition/everyone/basics/vitamins/calcium.html">http://www.cdc.gov/nutrition/everyone/basics/vitamins/calcium.html</a>, April 2011 (Accessed September 5, 2012).
- 4 U.S. Department of Health and Human Services. "Arthritis, Osteoporosis, and Chronic Back Conditions" in *Healthy People 2010 Midcourse Review,*

http://www.healthypeople.gov/2010/data/midcourse/pdf/fa02.pdf, (Accessed September 5, 2012).

Chapter 3

## Cancer

Healthy People 2010 Goal: Reduce the number of new cancer cases as well as the illness, disability, and death caused by cancer.

Cancer is a leading cause of death in the United States, second only to heart disease. More than one million people are diagnosed with new cases of cancer every year, and more than half a million die from the disease.

Cancer is a term used to describe a group of diseases in which abnormal cells divide uncontrollably and invade other tissues. Cancer cells can then spread to other parts of the body through the blood and lymph systems.<sup>3</sup>

There are more than 100 different types of cancer, which are typically named for the organ or type of cell in which they first invade. The most common cancer sites, accounting for more than half of all cancers, are the lung and bronchus, prostate, female breasts, and colon and rectum.

Survival rates vary by type of cancer, but for all cancers, a relative 5-year survival rate of 65 percent is seen. This means that 65 out of 100 people who were diagnosed with cancer will be alive after 5 years. Based on rates from 2007-2009, the lifetime risk of being diagnosed with any type of cancer is 41.2 percent. In other words, more than two out of five people will develop cancer in their lifetime.

#### **Cancer Risk Factors**

Many factors contribute to a person's risk of getting different cancers, including:<sup>5</sup>

- Age, race and sex
- Genetic factors and family history
- Low income or inadequate insurance
- Tobacco use
- Exposure to secondhand smoke
- Obesity
- Physical inactivity
- Poor diet high fat, low fiber
- Heavy alcohol and/or drug use
- Infectious agents
- Exposure to ultraviolet radiation
- Chemical and other substances



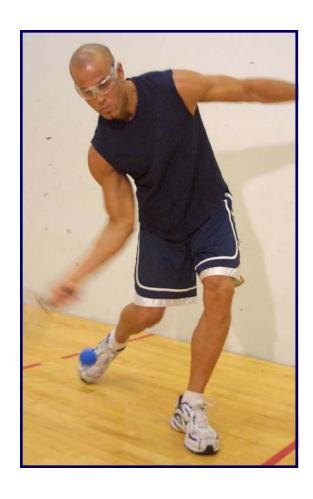
A person's risk for cancer can be greatly reduced by adopting a healthier lifestyle. This includes avoiding tobacco use, increasing physical activity, maintaining a healthy weight, improving nutrition, and avoiding sun exposure.<sup>1</sup>

Cancers that can be prevented or detected earlier through screening account for half of all cases in the United States.<sup>1</sup> Thus, the availability and accessibility of cancer screening, information, and referral services are essential for reducing high rates of new cancer and death.

#### **Cancer Prevention Tips**

- Reduce or avoid exposure to carcinogens such as tobacco
- Eat a balanced diet including fruits, vegetables, whole grains and fiber
- Reduce fats and preservatives in the diet
- Exercise regularly
- Reduce or avoid exposure to the sun
- Obtain adequate and consistent rest
- Eliminate or reduce stress
- Have annual health check-ups
- Enjoy relaxation and leisure time
- Practice self-examination
- Seek immediate medical care if cancer is suspected





#### **Local Findings**

- In 2009, cancer surpassed heart disease as the leading cause of death for the first time in San Diego County and has remained higher since then.
   -Death, 2007, 2009
- Lung cancer was the leading cause of cancer death for both males and females.
   -Death, 2000-2009
- San Diego County has exceeded HP2010 goal for overall cancer deaths . -Death, 2009

#### **HP 2010 Indicator**

#### 3-1. Reduce the overall cancer death rate.

**Target:** 158.6 deaths per 100,000 population (age-adjusted).

National Baseline: 200.8 cancer deaths per 100,000 population occurred in 1999 (age adjusted to the year

2000 standard population).

National Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted cancer death rate was 150.1 per 100,000 in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2010.

**Detailed Local Data:** Regional level data is available by gender, race/ethnicity and age (Figure 1).

Figure 1. Overall Cancer Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	nty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	aajastea rate
Total**	750	139.6	882	141.3	645	125.6	666	144.6	829	176.0	940	162.3	4,734	148.6	150.1
Gender															
Male	384	138.9	468	150.9	360	138.5	360	157.4	426	185.3	515	181.4	2,528	159.1	182.7
Female	366	140.5	414	131.9	285	112.4	306	131.9	403	167.2	425	143.9	2,206	138.2	125.9
Race/ Ethnicity															
White	622	196.8	716	185.3	318	232.2	290	256.4	695	232.1	768	230.2	3,426	216.1	157.9
Black	14	62.7	24	118.8	117	176.4	23	113.3	26	102.3	15	127.5	221	132.9	205.9
Hispanic	68	45.5	58	71.6	122	56.2	264	105.5	73	71.2	85	52.5	672	69.8	139.0
API‡	36	120.6	77	72.0	83	116.2	83	134.5	25	128.2	56	112.4	361	106.4	113.2
Other‡	10	51.7	6	20.3	5	23.2	5	32.7	9	37.4	13	58.9	48	36.4	60.2
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	16	2.5	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	5	5.7	18	3.6	
25-64	210	77.2	234	66.3	213	76.5	198	85.8	232	92.6	276	92.4	1,371	81.4	
65+	532	873.4	645	797.6	430	945.8	460	950.5	592	1025.2	657	877.9	3,329	904.1	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Overall Cancer Death refers to (underlying cause of death) ICD-10 codes C00-C97.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

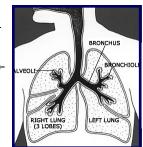
<sup>§</sup> Rates not calculated for fewer than 5 events.

## Lung Cancer

Lung cancer is the leading cause of cancer death for both men and women in the United States.<sup>2</sup> Among males, more deaths occur because of lung cancer than of colon, breast, and prostate cancers combined. It was estimated that in 2009, there would be 219,440 new cases and 159,390 deaths due to lung cancer in the United States.<sup>6</sup>

Lung cancer is cancer that forms in the lung tissues, usually in the cells that line air passages. Known risk factors include: cigarette smoking, cigar and pipe smoking, expo-

sure to secondhand smoke, contaminants such as radon gas or asbestos, personal history of lung disease or cancer, and family history of lung cancer. 9



## Tobacco use is the major cause of lung cancer in the United

**States;** 90% of lung cancer deaths in men and 80% in women are due to smoking.<sup>7</sup> Quitting smoking will greatly lower the risk of getting lung cancer. After 10 years of abstinence, the risk of lung cancer is reduced by 30 to 50 percent.<sup>2</sup>

Lung cancer risk can also be reduced by limiting exposure to secondhand smoke and other environmental contaminants. This can be done by not allowing smoking in the home or car, and purchasing a kit to measure the radon in your home if you live in an area with high radon levels. Protective equipment should be used if exposures to known carcinogens occur at work. For people with a personal or family history of lung cancer, a physician visit can help determine if screening is necessary.<sup>10</sup>

#### **HP 2010 Indicator**

#### 3-2. Reduce the lung cancer death rate.

**Target:** 43.3 deaths per 100,000 population (ageadjusted).

**National Baseline:** 55.5 lung cancer deaths per 100,000 population occurred in 1999 (age adjusted to the year 2000 standard population).

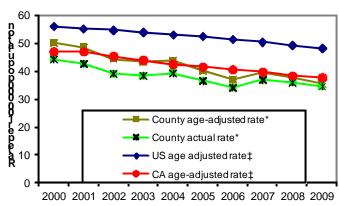
**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted lung cancer death rate was 35.7 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted lung cancer death rate decreased from 50.3/100,000 in 2000 to 35.7/100,000 in 2009 (Figure 2). Regional level data is available by gender, race/ethnicity and age (Figure 3).

Figure 2. Lung Cancer Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/25/2012: http://wonder.cdc.gov/cmf-icd10.html.





Figure 3. Lung Cancer<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

84	3. Lung curice Deutils Among Jun Diego Residents by Region of Residents												c, <b>_</b>		
	North Coastal		North Central		Central		So	uth	E	ast	North Inland		County		County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	aajastea rate
Total**	164	30.5	189	30.3	152	29.6	148	32.1	236	50.1	211	36.4	1,105	34.7	35.7
Gender															
Male	86	31.1	98	31.6	97	37.3	90	39.4	120	52.2	121	42.6	614	38.6	45.0
Female	78	29.9	91	29.0	55	21.7	58	25.0	116	48.1	90	30.5	491	30.8	28.6
Race/ Ethnicity															
White	141	44.6	158	40.9	89	65.0	85	75.1	205	68.5	179	53.7	861	54.3	40.1
Black	<5	§	<5	§	27	40.7	<5	§	8	31.5	<5	§	47	28.3	43.8
Hispanic	6	4.0	9	11.1	16	7.4	38	15.2	10	9.8	10	6.2	89	9.2	20.3
API‡	10	33.5	18	16.8	20	28.0	22	35.6	10	51.3	14	28.1	94	27.7	29.7
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	11	8.3	14.9
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<b>&lt;</b> 5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	38	14.0	32	9.1	45	16.2	31	13.4	53	21.2	55	18.4	255	15.1	
65+	126	206.9	157	194.1	107	235.4	116	239.7	183	316.9	156	208.5	849	230.6	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

 $<sup>\</sup>ensuremath{^{**}}$  Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Lung Cancer Death refers to (underlying cause of death) ICD-10 codes C33-C34.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

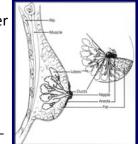
<sup>§</sup> Rates not calculated for fewer than 5 events.

### **Breast Cancer**

Among women in the United States, breast cancer is the most common cancer diagnosed, accounting for about 15 percent of cancer deaths.<sup>2</sup> It was estimated that in 2009, there would be 192,370 new cases of invasive breast cancer and 40,170 deaths due to breast cancer among females.<sup>11</sup>

Breast cancers begin in the breast tissue. The type

of breast cancer depends on where in the breast the cancer cells are located, most commonly in the ducts or the lobes. 11,12



Many breast cancer risk factors, such as age, family history of breast cancer, reproduc-

tive history, younger age at first menstrual period, starting menopause at a later age, dense breast tissue, previous breast disease, and race/ethnicity, cannot be changed. However, being overweight after menopause is a modifiable risk factor that is subject to prevention efforts.<sup>2,13</sup>

One of the best ways in which older women can reduced their risk of developing breast cancer is by avoiding weight gain through diet and regular exercise. Other ways to reduce the risk of breast cancer include not taking hormone replacement therapy or oral contraceptives for long periods of time and reducing the consumption of alcohol to not more than one alcoholic drink per day.<sup>2,13</sup> Women should also know family history of breast cancer.<sup>14</sup>

Regular screening to detect pre-cancerous cells or tumors includes breast self-exams and clinical breast exams, as well as mammography every one to two years after the age of 40. However, in 2009, the U.S. Preventive Services Task Force revised their mammography screening guidelines. They recommend that women of average risk should wait until they are 50 to have a routine biannual mammogram. <sup>32</sup>

#### **HP 2010 Indicator**

#### 3-3. Reduce the breast cancer death rate.

**Target:** 21.3 deaths per 100,000 females (ageadjusted).

**National Baseline:** 26.6 breast cancer deaths per 100,000 females occurred in 1999 (age adjusted to the year 2000 standard population).

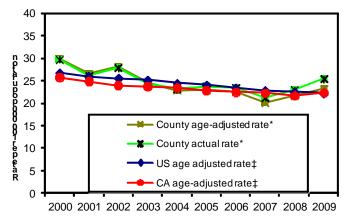
**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted breast cancer death rate was 23.3 per 100,000 female residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted rate decreased between 2000 and 2009. It has been comparable to California and to the U.S. since 2003 (Figure 4). Regional level data is available by gender, race/ethnicity and age (Figure 5).

Figure 4. Female Breast Cancer Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

<sup>‡</sup> Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/25/2012: http://wonder.cdc.gov/cmf-icd10.html.



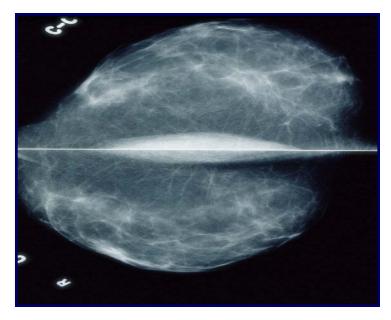


Figure 5. Female Breast Cancer<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	South		ast		orth and	Cou	ınty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	69	26.5	82	26.1	53	20.9	50	21.5	68	28.2	84	28.4	406	25.4	23.3
Gender															
Male															
Female	69	26.5	82	26.1	53	20.9	50	21.5	68	28.2	84	28.4	406	25.4	23.3
Race/ Ethnicity															
White	57	37.1	72	37.2	24	37.1	13	24.3	56	36.6	67	38.9	289	36.6	25.4
Black	<5	§	<5	§	11	33.0	<5	§	<5	§	<5	§	18	22.8	27.5
Hispanic	7	9.7	<5	§	10	9.3	30	23.2	8	15.3	10	12.6	69	14.3	21.0
API‡	5	31.0	<5	§	7	19.0	<5	§	<5	§	5	18.9	26	14.5	14.0
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	31	23.2	30	17.2	27	19.9	25	21.5	33	25.8	34	22.4	180	21.4	
65+	38	109.5	52	112.2	26	101.1	24	85.8	35	107.5	50	119.6	225	107.6	

<sup>\*</sup> Rates per 100,000 female population. Age-adjusted rates per 100,000 2000 US standard female population.

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Female Breast Cancer death refers to (underlying cause of death) ICD-10 code C50.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

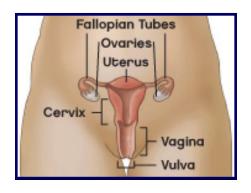
### Cervical Cancer

Cervical cancer used to be the leading cause of cancer death for women in the United States. However, the number of new cases and deaths have decreased significantly due to regular Pap testing, which can identify cervical pre-cancer before it becomes cancer. It was estimated that in 2009, there would be 11,270 new cases and 4,070 cervical cancer deaths.

Cervical cancer starts in the cervix, or the lower, narrow end of the uterus. Cervical cancer is highly preventable due to screening and a vaccine to prevent HPV. If found early, cervical cancer is treatable and associated with high rates of survival.<sup>17</sup>

The most common cause of cervical cancer is the human papillomavirus (HPV) infection, which is spread mostly through sexual contact. Cigarette smoking and exposure to secondhand smoke have also been shown to increase the risk of cervical cancer. Other factors that may increase risk include a high number of full-term pregnancies and long-term use of oral contraceptives.<sup>18</sup>

To decrease the risk of cervical cancer, it is recommended that women prevent HPV infection by avoiding sexual activity, using barrier protection such as a condom, and/or getting an HPV vaccine. Women should also get regular pelvic exams and Pap tests to screen for abnormal cells in the cervix.<sup>18</sup>



#### **HP 2010 Indicator**

## 3-4. Reduce the death rate from cancer of the uterine cervix.

**Target:** 2.0 deaths per 100,000 females (ageadjusted).

**National Baseline:** 2.8 cervical cancer deaths per 100,000 females occurred in 1999 (age adjusted to the year 2000 standard population).

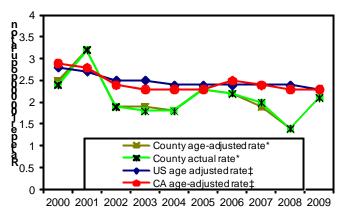
**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted cervical cancer death rate was 2.1 per 100,000 female residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted rate has remained below the California and U.S. rates since 2002 (Figure 6). Regional level data is available by gender, race/ethnicity and age (Figure 7).

Figure 6. Cervical Cancer Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/25/2012: http://wonder.cdc.gov/cmf-icd10.html.

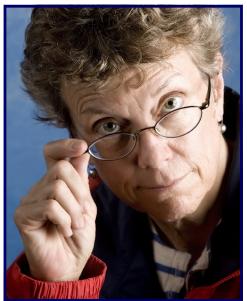






Figure 7. Female Cervical Cancer<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		0 0 7 0													
	Coa	orth astal	Се	orth ntral		ntral		outh	East		North Inland		County No. Rate*		County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	<5	§	<5	§	6	2.4	7	3.0	6	2.5	7	2.4	34	2.1	2.1
Gender															
Male															
Female	<5	§	<5	§	6	2.4	7	3.0	6	2.5	7	2.4	34	2.1	2.1
Race/ Ethnicity															
White	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	13	1.6	1.5
Black	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Hispanic	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	15	3.1	4.9
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	<5	§	<5	§	<5	§	<5	§	<5	§	5	3.3	23	2.7	
65+	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	11	5.3	

<sup>\*</sup> Rates per 100,000 female population. Age-adjusted rates per 100,000 2000 US standard female population.

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

 $<sup>\</sup>ensuremath{^{**}}$  Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Cervical Cancer death refers to (underlying cause of death) ICD-10 code C53.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

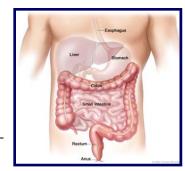
<sup>§</sup> Rates not calculated for fewer than 5 events.

### Colorectal Cancer

Colorectal (colon and rectal) cancer is the second leading cause of cancer-related death in the United States. An estimated 146, 970 new cases of colorectal cancer and 49,920 deaths were expected in 2009. Colorectal cancer affects both men and women of all racial groups. When estimated separately by gender, colorectal cancer is the third leading cause of cancer death for females behind lung and breast cancer, and the third leading cause for males behind lung and prostate cancers. 2,20

Colorectal cancer starts in either the tissues of the

colon or the rectum, which are part of the digestive system. <sup>19</sup> The risk of developing colorectal cancer increases with older age; more than 90 percent of new cases occur in people ages 50 or older. <sup>21</sup>



Risk factors that cannot be prevented include inflammatory bowel disease, personal or family history of colorectal cancer or polyps, and certain hereditary syndromes. <sup>21</sup> Lifestyle factors that may increase the risk of colorectal cancer include obesity, low fruit and vegetable intake, a low-fiber and high-fat diet, lack of regular exercise, smoking, and drinking alcoholic beverages. <sup>21,23</sup>

It is estimated that at least 50 percent to 60 percent of colorectal cancer deaths could be prevented with regular screening. Screening should begin at age 50, or sooner with a family or personal history of colorectal cancer or a personal history of inflammatory bowel disease. <sup>22</sup>

### **HP 2010 Indicator**

### 3-5. Reduce the colorectal cancer death rate.

**Target:** 13.7 deaths per 100,000 population (ageadjusted).

**National Baseline:** 20.9 colorectal cancer deaths per 100,000 population occurred in 1999 (age adjusted to the year 2000 standard population).

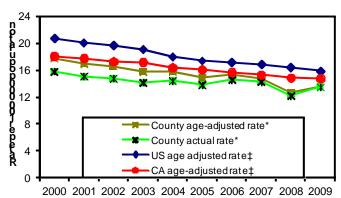
**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted colorectal cancer death rate was 13.5 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted rate has been comparable to the California and below the U.S. rates since 2000 (Figure 8). Regional level data is available by gender, race/ethnicity and age (Figure 9).

Figure 8. Colorectal Cancer Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/25/2012: http://wonder.cdc.gov/cmf-icd10.html.





Figure 9. Colorectal Cancer<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	inty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	aujusteu rate
Total**	68	12.7	98	15.7	41	8.0	60	13.0	78	16.6	85	14.7	430	13.5	13.5
Gender															
Male	32	11.6	56	18.1	22	8.5	35	15.3	39	17.0	48	16.9	232	14.6	16.4
Female	36	13.8	42	13.4	19	7.5	25	10.8	39	16.2	37	12.5	198	12.4	11.0
Race/ Ethnicity															
White	54	17.1	73	18.9	20	14.6	26	23.0	68	22.7	67	20.1	308	19.4	14.0
Black	<5	§	<5	§	7	10.6	<5	§	<5	§	<5	§	16	9.6	14.2
Hispanic	9	6.0	9	11.1	7	3.2	24	9.6	8	7.8	11	6.8	68	7.1	13.9
API‡	<5	§	11	10.3	6	8.4	5	8.1	<5	§	<5	§	28	8.3	9.0
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	10	7.6	12.0
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	20	7.3	27	7.6	15	5.4	22	9.5	20	8.0	31	10.4	135	8.0	
65+	48	78.8	71	87.8	26	57.2	38	78.5	58	100.4	54	72.2	295	80.1	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

 $<sup>\</sup>ensuremath{^{**}}$  Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Colorectal Cancer death refers to (underlying cause of death) ICD-10 codes C18-C21.

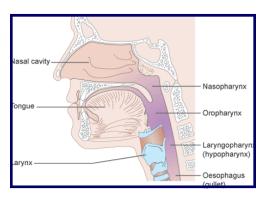
<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

## Oropharyngeal Cancer

Oropharyngeal (Oral and pharyngeal) cancer is cancer of the oral cavity and throat. Based on rates from 2007-2009, 1 in 93 men and women will be diagnosed with throat or pharynx cancer in their lifetime.<sup>33</sup> In 2009, it was estimated that 35,720 people would be diagnosed and 7,600 people would die of oropharyngeal cancer.<sup>6</sup>

Oropharyngeal cancer is a disease in which cancer cells form in the tissues of the oropharynx, which is the middle part of the throat behind the mouth, including the back one-third of the tongue, the soft palate, the side and back walls of the throat, and the tonsils.<sup>24</sup>



Despite being diagnosed less often than other cancers, oropharyngeal cancer is one of the more deadly cancers, with only a 53 percent survival rate.<sup>2</sup> However, most of these deaths can be prevented with lifestyle changes.

The most common risk factors for oropharyngeal cancer include cigarette smoking, chewing tobacco, heavy alcohol use, a diet low in fruits and vegetables, and being infected with human papillomavirus (HPV).<sup>24</sup> While alcohol consumption is an independent risk factor, when combined with the use of cigarettes or chewing tobacco, it accounts for 90 percent of all oral cancers.<sup>2</sup>

### **HP 2010 Indicator**

### 3-6. Reduce the oropharyngeal cancer death rate.

**Target:** 2.4 deaths per 100,000 population (ageadjusted).

**National Baseline:** 2.7 oropharyngeal cancer deaths per 100,000 population occurred in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted oropharyngeal cancer death rate was 2.5 per 100,000 in 2009.

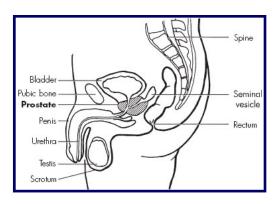
**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.



### Prostate Cancer

Among males, prostate cancer is the most commonly diagnosed type of non-skin cancer and the second leading cause of death in the United States.<sup>2</sup> In 2009, it was estimated that 192,280 new cases of prostate cancer would be diagnosed and 27,360 deaths would be due to prostate cancer.<sup>6</sup>

Prostate cancer is cancer that forms in the tissues of the prostate, which is a walnut-sized gland in the male reproductive system found below the bladder and in front of the rectum. Prostate cancer usually occurs in men over the age of 65 years; the older a man is, the greater his risk.



Other risk factors that are not modifiable include family history of prostate cancer and race/ethnicity. The risk of prostate cancer is dramatically higher among Blacks. Diet and lifestyle risk factors are still under study, but it is thought that a high-fat diet and a diet high in dairy and may be associated with an increased risk of prostate cancer. <sup>28</sup>

Since the most prominent risk factors cannot be changed, such as age and race, screening can help identify prostate cancer at an early stage when it might be easier to treat. Regular doctor visits can help determine if and when screening is necessary.<sup>29</sup>

### **HP 2010 Indicator**

#### 3-7. Reduce the prostate cancer death rate.

**Target:** 28.2 deaths per 100,000 males (ageadjusted).

**National Baseline:** 31.3 prostate cancer deaths per 100,000 males occurred in 1999 (age adjusted to the year 2000 standard population).

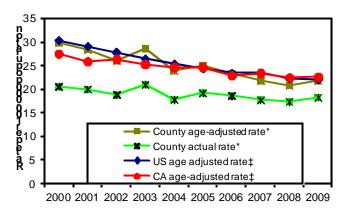
**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted prostate cancer death rate was 21.8 per 100,000 male residents in 2009.

**Local Data Source: Deat**h Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted rate has been comparable to California and U.S. rates since 2000 (Figure 10). Regional level data is available by gender, race/ethnicity and age (Figure 11).

Figure 10. Prostate Cancer Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/25/2012: http://wonder.cdc.gov/cmf-icd10.html.



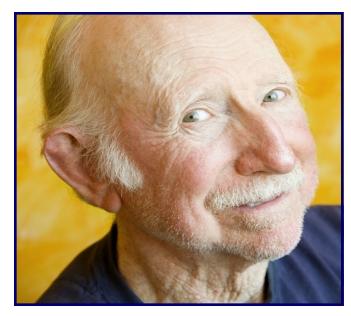


Figure 11. Prostate Cancer<sup>†</sup> Deaths Among Male San Diego Residents by Region of Residence, 2009

															-
	Coa	orth astal Rate*	Ce	orth ntral Rate*	Cei	ntral Rate*	So No.	uth Rate*	E No.	ast Rate*		orth and Rate*	Cou No.	inty Rate*	County age- adjusted rate*
Total**	44	15.9	60	19.3	38	14.6	42	18.4	48	20.9	56	19.7	291	18.3	21.8
Gender															
Male	44	15.9	60	19.3	38	14.6	42	18.4	48	20.9	56	19.7	291	18.3	21.8
Female															
Race/ Ethnicity															
White	38	23.4	49	25.4	13	18.0	19	31.9	41	28.0	52	32.3	215	27.0	21.9
Black	<5	§	<5	§	16	48.6	<5	§	<5	§	<5	§	23	26.3	55.7
Hispanic	<5	§	6	15.1	5	4.6	17	14.1	<5	§	<5	§	36	7.5	21.9
API‡	<5	§	<b>&lt;</b> 5	§	<5	§	5	17.4	<5	§	<5	§	15	9.3	12.7
Other‡	<5	§	<b>&lt;</b> 5	§	<5	§	<5	§	<5	§	<5	§	<b>&lt;</b> 5	§	§
Age Group															
0-14	<5	§	<5	§	<b>&lt;</b> 5	§	<b>&lt;</b> 5	§	<5	§	<b>&lt;</b> 5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<b>&lt;</b> 5	§	<5	§	
25-64	<5	§	<5	§	<5	§	7	6.1	<5	§	<b>&lt;</b> 5	§	25	3.0	
65+	40	152.7	57	165.1	34	172.2	35	171.3	47	186.6	52	157.4	266	167.2	

<sup>\*</sup> Rates per 100,000 male population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Prostate Cancer death refers to (underlying cause of death) ICD-10 code C61.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

### Melanoma Cancer

Skin cancer is the most common form of cancer in the United States. Melanoma, a type of skin cancer, is the third most common, but the deadliest of all skin cancers. In 2009, 68,720 new cases of melanoma were expected to be diagnosed and 11,590 deaths were expected to be caused by melanoma in the United States. In 2009, it was estimated that approximately 876,300 people were alive who had a history of melanoma.

Melanoma is a form of skin cancer that begins in melanocytes, the cells that make melanin. It can begin as either a mole or in other pigmented tissues, such as the eye or intestines.<sup>30</sup>

Being exposed to strong ultraviolet (UV) radiation for short periods of time, such as a with a sunburn, may increase the risk of melanoma. This is especially true if the exposure occurs during childhood and teen years. People who burn easily, have freckles or a lot of moles are at increased risk. Sunscreen and protective clothing may decrease the amount of UV radiation to the skin, but has not proven to lower the risk of melanoma skin cancer.<sup>30</sup>

Other risk factors for melanoma include a personal or

family history of melanoma, the presence of atypical moles, a large number of moles, intermittent sun exposure, and having sunsensitive skin.<sup>2</sup>



### **HP 2010 Indicator**

### 3-8. Reduce the rate of melanoma cancer deaths.

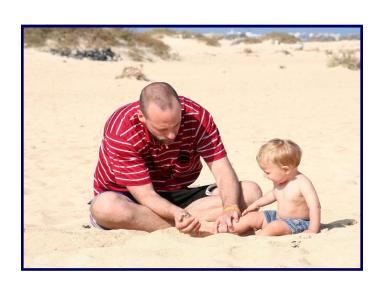
**Target:** 2.3 deaths per 100,000 population (ageadjusted).

**National Baseline:** 2.6 melanoma cancer deaths per 100,000 population occurred in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted melanoma cancer death rate was 2.8 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.



### Screening and Prevention

### **HP 2010 Indicators**

3-9. Increase the proportion of persons who use at least one of the following protective measures that may reduce the risk of skin cancer: 1) avoid the sun between 10 a.m. and 4 p.m., 2) wear sun-protective clothing when exposed to sunlight, 3) use sunscreen with a sunprotective factor (SPF) of 15 or higher, and 4) avoid artificial sources of ultraviolet light.

#### **Target and National Baseline:**

	Increase the proportion of specified persons who	Baseline 2010 (year) Target			
Objective	follow protective measures that may re- duce the risk of skin can- cer	Percent			
3-9a.	adolescents in grades 9 through 12	24 (2005)	TBD		
3-9b.	adults aged 18 years and older	59 (2000)	85		

National Data Source: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP. National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 reflect the use of any of the aforementioned protective measures. San Diego County data reflect those who use sunscreen with Sun Protective Factor 15 or higher.

**3-9a:** In San Diego County, 11.3% of adolescents in San Diego City Schools aged 12 through 17 years reported that they always used sunscreen with Sun Protective Factor (SPF) of 15 or higher when out in the sun for an hour or more, in 2007.

**3-9b:** No local data available.

**Local Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC.

3-10. Increase the proportion of physicians and dentists who counsel their at-risk patients about tobacco use cessation, physical activity, and cancer screening.

#### **Target and National Baseline:**

Objective	Increase in Counseling About Tobacco Use Ces- sation, Physical Activity,	1988 Baseline (unless noted)*	2010 Target
	and Cancer Screening	Age-Adjust	ed Percent
3-10a.	Internists who counsel about smoking cessation	50	85
3-10b.	Family physicians who counsel about smoking cessation	43	85
3-10c.	Dentists who counsel about smoking cessation	59 (1997)	85
3-10d.	Primary care providers who counsel about blood stool tests	56	85
3-10e.	Primary care providers who counsel about proctoscopic examinations	23	85
3-10f.	Primary care providers who counsel about mam-mograms	37	85
3-10g.	Primary care providers who counsel about Pap tests	55	85
3-10h	Primary care providers who counsel about physical activity	12 (1998)	85

<sup>\*</sup>Age adjusted to the year 2000 standard population.

National Data Sources: Survey of Physicians' Attitudes and Practices in Early Cancer Detection, NIH, NCI; National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; Survey of Current Issues in Dentistry, American Dental Association.

### 3-11. Increase the proportion of women who receive a Pap test.

#### **Target and National Baseline:**

Objective	Increase in Pap Testing	1998 Baseline*	2010 Target		
		Age-Adjusted Percent			
3-11a.	Women aged 18 years and older who have ever received a Pap test	92	97		
3-11b.	Women aged 18 years and older who received a Pap test within the preceding 3 years	79	90		

<sup>\*</sup>Age adjusted to the year 2000 standard population. This includes women without a uterine cervix.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect an age-adjusted percent. San Diego County data reflect an actual percent.

- **3-11a:** In San Diego County, according to the 2007 California Health Interview Survey, 93.6% of women aged 18 years and older received a Pap test in their lifetime.
- **3-11b:** In San Diego County, according to the 2007 California Health Interview Survey, 88% of women aged 18 years and older received a Pap test within the past 3 years.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2007 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 7/2012).

## 3-12. Increase the proportion of adults who receive a colorectal cancer screening examination.

#### **Target and National Baseline:**

Objective	Increase in Colorectal Cancer Screening	Baseline (year)*	2010 Target
	curicer screening	Age-Adjust	ed Percent
3-12a.	Adults aged 50 years and older who have received a fecal occult blood test (FOBT) within the preceding 2 years	24 (2000)	33
	Adults aged 50 years and older who have ever received a sigmoidoscopy	37 (1998)	50

<sup>\*</sup>Age adjusted to the year 2000 standard population.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. For part a, this is because the Healthy People 2010 data reflect those who have received a FOBT. San Diego County data reflects those who are ACS compliant which includes FOBT and other screenings. For part b, Healthy People specify sigmoidoscopy; while San Diego County data include sigmoidoscopy, colonoscopy or home FOBT. Also, Healthy People use age-adjusted percent; San Diego County data is an actual percent.

- **3-12a:** In San Diego County, according to the 2009 California Health Interview Survey, 68.7% of adults aged 50 years and older were compliant with the American Cancer Society screening recommendations.
- **3-12b:** In San Diego County, according to the 2009 California Health Interview Survey, 79.2% of adults aged 50 years and older ever received a sigmoidoscopy, colonoscopy, or a fecal occult blood test using a home test kit.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

# 3-13. Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years.

**Target:** 70 percent (age-adjusted).

**National Baseline:** 67 percent of women aged 40 years and older received a mammogram within the preceding 2 years in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data are age-adjusted. San Diego County data are not.

In San Diego County, according to the 2009 California Health Interview Survey, 81.0% of women aged 40 years and older received a mammogram within the preceding 2 years.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 7/2012).

3-14. Increase the number of States that have a statewide population-based cancer registry that captures case information on at least 95 percent of the expected number of reportable cancers.

Target: 45 States.

**National Baseline:** 30 States had a statewide population-based cancer registry that captured case information on at least 95 percent of the expected number of reportable cancers in 1999.

**National Data Source:** National Program of Cancer Registries, CDC.

Local Data: No local data available.

3-15. Increase the proportion of cancer survivors who are living 5 years or longer after diagnosis.

Target: 70 percent.

**National Baseline:** 59 percent of persons with invasive cancer of any type were living 5 years or longer after diagnosis in 1989–95.

**National Data Source:** Surveillance, Epidemiology, and End Results (SEER) Program, NIH, NCI.

Local Data: No local data available.

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### SAN DIEGO COUNTY

Chapter 4

## Chronic Kidney Disease

Healthy People 2010 Goal: Reduce new cases of chronic kidney disease and its complications, death, and economic costs.

Chronic kidney disease (CKD) is a serious condition associated with premature mortality, decreased quality of life, and increased healthcare expenditures.<sup>1</sup> Over the past decade, a 30 percent increase in CKD has been reported, affecting an estimated 27 million Americans and accounting for more than 24 percent of Medicare costs.<sup>2</sup>

CKD is the permanent loss of kidney function due to a physical injury or a disease that damages the kidneys, such as diabetes or high blood pressure. When the kidneys are damaged, they cannot remove waste and extra water from the blood as they should.<sup>3</sup> Left untreated, the most significant result of CKD is kidney failure, or end-stage renal disease (ESRD).<sup>1,4</sup>

In order to maintain life, ESRD requires dialysis - a treatment to replace some of the kidney function through waste and fluid removal, or kidney transplantation. However, kidney failure is only a small part of the problem. It is estimated that 20 million Americans have reduced kidney function, or chronic renal insufficiency. With just a small loss of kidney function, a person's risk of developing cardiovascular disease can double.

CKD develops slowly and is usually asymptomatic in the early stages. Risk factors include diabetes, high blood pressure, increasing age, family history of CKD, and African American, American Indian or Alaska Native race.<sup>3,4</sup>

## The leading causes of CKD are diabetes and high blood pressure!



### Slowing or Avoiding Kidney Failure

- Keep blood pressure below 130/80 mm Hg<sup>5</sup>
- Control blood glucose
- Reduce protein intake

### **HP 2010 Objectives**

### 4-1. Reduce the rate of new cases of endstage renal disease (ESRD).

Target: 227 new cases per million population.

**National Baseline:** 300 new cases of end-stage renal disease per million population were reported in 1997.

National Data Source: U.S. Renal Data System

(USRDS), NIH, NIDDK.

Local Data: No local data available.

### 4-2. Reduce deaths from cardiovascular disease in persons with chronic kidney failure.

Target: 65.8 deaths per 1,000 patient years at risk.

**National Baseline:** 92.5 deaths from cardiovascular disease per 1,000 patient years at risk (in persons with ESRD) occurred in 1997.

National Data Source: U.S. Renal Data System

(USRDS), NIH, NIDDK.

Local Data: No local data available.

# 4-3. Increase the proportion of treated chronic kidney failure patients who have received counseling on nutrition, treatment choices, and cardiovascular care 12 months before the start of renal replacement therapy.

Target: 60 percent.

**National Baseline:** 45 percent of newly diagnosed patients with treated chronic kidney failure received counseling on nutrition, treatment choices, and cardiovascular care in 1996.

**National Data Source:** USRDS Dialysis Mortality and Morbidity Study (DMMS) Wave 2, U.S. Renal Data System (USRDS), NIH, NIDDK.

Local Data: No local data available.

## 4-4. Increase the proportion of new hemodialysis patients who use arteriovenous fistulas as the primary mode of vascular access.

Target: 45 percent.

**Baseline:** 26 percent of newly diagnosed patients with treated chronic kidney failure on hemodialysis used arteriovenous fistulas as the primary mode of vascular access in 1997.

**National Data Source:** Centers for Medicare and Medicaid Services (CMS); Clinical Performance Measures (CPM) project.

Local Data: No local data available.

## 4-5. Increase the proportion of dialysis patients registered on the waiting list for transplantation.

**Target:** 25.0 percent of dialysis patients.

**National Baseline:** 15 percent of newly diagnosed treated chronic kidney failure patients under age 70 years were registered on the waiting list in 1998.

National Data Source: U.S. Renal Data System

(USRDS), NIH, NIDDK.

Local Data: No local data available.

# 4-6. Increase the proportion of patients with treated chronic kidney failure who receive a transplant within 3 years of registration on the waiting list.

Target: 30.5 registrants per 1,000 patient years at risk.

**National Baseline:** 23.1 registrants per 1,000 patient years at risk (since placed on dialysis) received a transplant within 3 years in 1998.

National Data Source: U.S. Renal Data System

(USRDS), NIH, NIDDK.

#### 4-7. Reduce kidney failure due to diabetes.

**Target:** 97.7 diabetic persons with new cases of ESRD per million population.

**National Baseline:** 135 diabetic persons with new cases of ESRD per million population were reported in 1997.

National Data Source: U.S. Renal Data System

(USRDS), NIH, NIDDK.

Local Data: No local data available.

4-8. Increase the proportion of persons with type 1 or type 2 diabetes and chronic kidney disease who receive recommended medical evaluation and treatment to reduce progression to chronic renal insufficiency.

#### **Target and National Baseline:**

Objective	Increase the proportion of diabetics with chronic kidney disease who receive recommended evaluation	Baseline (2000)	2010 Target		
	and treatment*	Percent			
4-8a.	Medical Evaluation	21	36		
4-8b.	Treatment	32	38		

\* Preventative health test such as eye examinations, lipid testing and glycosylated hemoglobin (HbA1C) testing. Recommended medical management including the use of drugs that modify the renin-angiotensin-aldosterone system (RAAS), such as angiotensin converting enzyme inhibitors (ACEI) and angiotensin receptor blockers (ARB).

National Data Sources: Centers for Medicare and Medicaid Services Standard Analytic Files (SAF), CMS, and U.S. Renal Data System (USRDS), NIH, NIDDK

Local Data: No local data available.

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### SAN DIEGO COUNTY

Chapter 5

## Diabetes

Healthy People 2010 Goal: Through prevention programs, reduce the disease and economic burden of diabetes, and improve the quality of life for all persons who have or are at risk for diabetes.

Diabetes mellitus is a serious disease in which the levels of blood glucose, or blood sugar, are above normal. In the United States in 2010, 25.8 million children and adults had diabetes, representing 8.3% of the population. One out of four people with diabetes do not know they have the disease. Furthermore, diabetes is increasing in both new and total cases.

Uncontrolled diabetes can cause major health problems and disability. People with diabetes are more likely to have heart disease and stroke, vision problems such as blindness, nerve damage to hands and feet leading to amputation, kidney failure, and loss of teeth.<sup>3</sup>

**There are three types of diabetes.** Type 1 diabetes is an autoimmune disease in which the body does not produce enough insulin, and is typically first diagnosed in children and young adults.<sup>2,4</sup> Most Americans have type 2 diabetes, accounting for 90% to 95% of all cases. Onset can occur at any age, but typically occurs after age 40.2 Type 2 diabetes is associated with obesity and physical inactivity. A third form of diabetes called gestational diabetes occurs during pregnancy, and usually disappears after delivery.2 However, 5% to 10% of women with gestational diabetes will develop type 2 diabetes.<sup>5</sup> Pre-diabetes is a condition that can lead to type 2 diabetes. In addition to Americans already diagnosed with diabetes, another 57 million have pre-diabetes. 1

All people aged 45 years or older should consider testing for diabetes, even if they are not at risk. People younger than 45 years should consider testing if they have one or more risk factors for diabetes. <sup>2,4</sup> Individuals at risk for type 2 diabetes can prevent or delay onset by losing 5% to 7% of their body weight. <sup>2,6</sup>

#### **Diabetes Risk Factors**

- Overweight or obese
- · Family history
- History of gestational diabetes
- Impaired glucose tolerance
- Physical inactivity
- Black, Hispanic, Asian/Pacific Islander or American Indian race/ethnicity
- High blood pressure
- Poor cholesterol levels
- Polycystic ovary syndrome
- History of cardiovascular disease

For people already diagnosed with diabetes, weight management is especially important to avoid further long-term problems.

#### **Diabetes Prevention**



The two most effective ways to prevent diabetes are healthy eating and regular exercise!

People with diabetes must take responsibility for their everyday care, which includes controlling blood glucose levels. They must also take medication as prescribed, manage stress, quit smoking, care for teeth, check feet daily, monitor blood glucose and blood pressure, and report changes in eyesight. Regular physician visits should include A1C testing, blood pressure and cholesterol measurements.

### **Local Findings**

- Diabetes prevalence among adults (7.8%) is lower in San Diego than in California (8.5%). –*CHIS*, 2009
- In San Diego, 21.2% of adults with diabetes have Type I diabetes. –*CHIS*, 2009
- Among non-diabetic women in San Diego who have been pregnant, 4.4%
   were diagnosed with diabetes during pregnancy. –CHIS, 2009
- On average, 534 residents die from diabetes every year. -Death, 2000-2009
- Residents of the East Region were most likely to die of diabetes. -Death, 2009
- Controlling for age, Blacks were more likely than other racial/ethnic groups to die of diabetes. -Death, 2009

### **HP 2010 Indicators**

## 5-1. Increase the proportion of persons with diabetes who receive formal diabetes education.

**Target:** 60 percent (age-adjusted).

**National Baseline:** 45 percent of persons with diabetes received formal diabetes education in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

#### 5-2. Prevent diabetes.

**Target:** 3.8 new cases per 1,000 population per year (age-adjusted).

**National Baseline:** 5.5 new cases of diabetes per 1,000 population (3-year average) occurred in 1997-99 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

### 5-3. Reduce the overall rate of diabetes that is clinically diagnosed.

**Target:** 25 overall cases per 1,000 population (ageadjusted).

**National Baseline:** 40 overall cases (including new and existing cases) of diabetes per 1,000 population occurred in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 data. This is because data for San Diego County data reflects ages 18 and older as a percent. While, Healthy People data reflects an age-adjusted rate among all ages.

In San Diego County, according to the 2009 California Health Interview Survey, 7.8% of adults had ever been told they have diabetes.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

**Detailed Local Data:** The County age-adjusted diabetes death rate remained relatively stable between 2000 and 2004, increased in 2005 and 2006, and has been decreasing since 2007. It has been below the age-adjusted rates for the U.S. and California since 2000 (Figure 1). Regional level data is available by gender, race/ethnicity and age (Figure 2).

## 5-4. Increase the proportion of adults with diabetes whose condition has been diagnosed.

Target: 78 percent (age-adjusted).

**National Baseline:** 64 percent of adults aged 20 years and older with diabetes had been diagnosed in 1988–94 (age adjusted to the year 2000 standard population).

**National Data source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

#### 5-5. Reduce the diabetes death rate.

**Target:** 46 deaths per 100,000 population (ageadjusted).

**Baseline:** 77 deaths per 100,000 population were related to diabetes in 1999 (age adjusted to the year 2000 standard population).

**Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

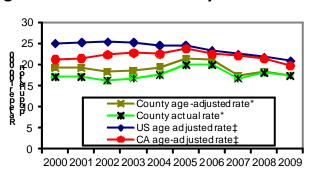
**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 objective uses multiple causes of death; that is, where diabetes was the underlying or a contributing cause of death. San Diego County data uses only underlying cause of death.

In San Diego County, the age-adjusted diabetes death rate was 17.5 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

### 5-6. Reduce diabetes-related deaths among persons with diabetes.

Figure 1. Diabetes Deaths by Year



\* Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/25/2012: http://wonder.cdc.gov/cmf-icd10.html.

**Target:** 7.8 deaths per 1,000 persons with diabetes (age-adjusted).

**National Baseline:** 8.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate occurred in 1999 (age adjusted to the year 2000 standard population).

**National Data sources:** National Vital Statistics System (NVSS), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.

Figure 2. Diabetes Deaths Among San Diego Residents by Region of Residence, 2009

		orth Istal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	inty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	67	12.5	79	12.7	98	19.1	87	18.9	109	23.1	114	19.7	555	17.4	17.5
Gender															
Male	34	12.3	47	15.2	52	20.0	56	24.5	65	28.3	70	24.7	325	20.5	23.2
Female	33	12.7	32	10.2	46	18.1	31	13.4	44	18.3	44	14.9	230	14.4	12.7
Race/ Ethnicity															
White	41	13.0	60	15.5	40	29.2	35	30.9	73	24.4	87	26.1	337	21.3	15.1
Black	<5	§	<5	§	19	28.6	<5	§	6	23.6	<5	§	34	20.4	34.5
Hispanic	15	10.0	8	9.9	26	12.0	40	16.0	17	16.6	17	10.5	123	12.8	27.2
API‡	8	26.8	8	7.5	12	16.8	8	13.0	11	56.4	<5	§	51	15.0	17.0
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	10	7.6	14.0
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	15	5.5	18	5.1	24	8.6	28	12.1	33	13.2	25	8.4	143	8.5	
65+	52	85.4	61	75.4	73	160.6	58	119.8	76	131.6	88	117.6	409	111.1	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

### 5-7. Reduce deaths from cardiovascular disease in persons with diabetes.

**Target:** 299 deaths per 100,000 persons with diabetes (age-adjusted).

**National Baseline:** 332 deaths from cardiovascular disease per 100,000 persons with diabetes occurred in 1999 (age adjusted to the year 2000 standard population).

National Data sources: National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

### 5-8. Objective deleted by Federal Government at midcourse review.

### 5-9. Objective deleted by Federal Government at midcourse review.

### 5-10. Reduce the rate of lower extremity amputations in persons with diabetes.

**Target:** 2.9 lower extremity amputations per 1,000 persons with diabetes per year (age-adjusted).

**National Baseline:** 6.6 lower extremity amputations per 1,000 persons with diabetes occurred in 1997-99 (age adjusted to the year 2000 standard population).

National Data Sources: National Hospital Discharge Survey (NHDS), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Diabetes Death refers to (underlying cause of death) ICD-10 codes E10-E14. Data here only represent underlying cause of death and do not in-†† API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native,

American Indian, or other. Unknown not included. § Rates not calculated for fewer than 5 events.

Local Data: No local data available.

## 5-11. Increase the proportion of adults with diabetes who obtain an annual urinary microalbumin measurement.

Target: 14 percent.

**National Baseline:** 12 percent of Medicare beneficiaries with diabetes obtained an annual urinary microalbumin measurement in 2000.

**National Data Sources:** United States Renal Data Systems (USRDS), National Institute of Health (NIH), NIDDK.

Local Data: No local data available.

## 5-12. Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least twice a year.

**Target:** 65 percent (age-adjusted, changed middecade).

National Baseline: 66 percent (2000).

**National Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because Healthy People data is age-adjusted percent; while San Diego County data reflects an unadjusted percent.

In San Diego County, according to the 2009 California Health Interview Survey, 62% of diabetic adults have a glycosylated hemoglobin measurement (A1C test) at least two times per year.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

## 5-13. Increase the proportion of adults with diabetes who have an annual dilated eye examination.

Target: 76 percent (age-adjusted).

**National Baseline:** 49 percent of adults aged 18 years and older with diabetes had an annual dilated eye examination in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 5-14. Increase the proportion of adults with diabetes who have at least an annual foot examination.

Target: 91 percent (age-adjusted).

National Baseline: 68 percent of adults aged 18 years and older with diabetes had at least an annual foot examination (mean value of data from 39 States in 1998; age adjusted to the year 2000 standard population).

**National Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because Healthy People data is age-adjusted percent; while San Diego County data reflects an unadjusted percent.

In San Diego County, according to the 2009 California Health Interview Survey, 76.4% of diabetics have at least an annual foot examination.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

## 5-15. Increase the proportion of persons with diabetes who have at least an annual dental examination.

Target: 71 percent (age-adjusted).

National Baseline: 56 percent of persons aged. 2 years and older with diagnosed diabetes saw a dentist at least once within the preceding 12 months in 1997 (age adjusted

to the year 2000 standard population).

**National Data source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 5-16. Increase the proportion of adults with diabetes who take aspirin at least 15 times per month.

Target: 30 percent (age-adjusted).

**National Baseline:** 20 percent of adults aged 40 years and older with diabetes took aspirin at least 15 times per month in 1999-2000 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

## 5-17. Increase the proportion of adults with diabetes who perform self-blood-glucose-monitoring at least once daily.

Target: 61 percent (age-adjusted).

**National Baseline:** 43 percent of adults aged 18 years and older with diabetes performed self-blood-glucose-monitoring at least once daily (mean of data from 39 States in 1998; age adjusted to the year 2000 standard population).

**National Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because Healthy People data is age-adjusted percent; while San Diego County data reflects an unadjusted percent.

In San Diego County, according to the 2009 California Health Interview Survey, 45% of diabetic adults perform self-blood-glucose monitoring more than 30 times per month.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

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### SAN DIEGO COUNTY

Chapter 6

### Disability & Secondary Conditions

Healthy People 2010 Goal: Promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population.

It is estimated that in 2009, 36 million people were living with at least 1 disability, representing about 12% of the United States population. According to the Americans with Disabilities Act (ADA), an individual with a disability is one who has a physical or mental impairment that substantially limits one or more major life activities, has a record of impairment, or is regarded as having such an impairment. The United Nations uses a different definition of disability, largely reflecting disability as a social construct: Any restriction or lack (resulting from impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

Despite the wide range of formal definitions, disability status is usually associated with health status. Thus, the health and well-being of people with disabilities has been addressed chiefly in terms of medical care. This approach, however, leads to major misconceptions about people with disabilities, including: 1) people with disabilities have poor health, 2) public health should only focus on preventing disabling conditions, 3) a standard definition is not needed, and 4) the environment plays no role in the disabling process.<sup>1</sup>

As a result, health promotion and prevention activities that target people with disabilities have been

underemphasized, and the incidence of secondary conditions has increased. Secondary conditions include any medical, social, emotional, family or community problems that result from a specific type of primary disability or medical condition.<sup>1</sup>

In order to promote health and to improve the quality of life of persons with disabilities, health promotion and prevention activities need to address mental and emotional well-being, social support, ability to work, education, access to health and wellness programs, support for caregivers, and the reduction of environmental barriers to participation in activities.<sup>1</sup>



### **HP 2010 Indicators**

6-1. Include in the core of all relevant Healthy People 2010 surveillance instruments a standardized set of questions that identify "people with disabilities."

Target: 100 percent.

**National Baseline:** No Healthy People 2010 surveillance instruments include a standard set of questions that identify people with disabilities in 1999.

National Data Source: CDC, NCBDDD.

Local Data: No local data available.

## 6-2. Reduce the proportion of children and adolescents with disabilities who are reported to be sad, unhappy, or depressed.

Target: 17 percent.

**National Baseline:** 31 percent of children and adolescents aged 4 to 11 years with disabilities were reported to be sad, unhappy, or depressed in 1997.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 6-3. Reduce the proportion of adults with disabilities who report feelings such as sadness, unhappiness, or depression that prevent them from being active.

Target: 7 percent (age-adjusted).

National Baseline: 28 percent of adults aged 18 years and older with disabilities reported feelings that prevented them from being active in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data specifically reflect how often

negative feelings were the cause of limitations. San Diego County data aggregate physical and mental health and do not specifically ask how often negative feelings alone are the cause of limitations. Also, Healthy People data reflect age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the California Health Interview Survey, 54.5% of adults with disabilities had negative feelings (psychological stress) and a physical and/or mental health ailment that interfered with activity in 2005.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2005 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

### 6-4. Increase the proportion of adults with disabilities who participate in social activities.

**Target:** 79 percent (age-adjusted).

National Baseline: 61 percent of adults aged 18 years and older with disabilities participated in social activities such as getting together with friends and family, telephoning friends and family, or going to worship or group events in 2001 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 6-5. Increase the proportion of adults with disabilities reporting sufficient emotional support.

Target: 84 percent (age-adjusted).

**National Baseline:** 71 percent of adults aged 18 years and older with disabilities reported sufficient emotional support in 2001 (data from 11 States and the District of Columbia; age adjusted to the year 2000 standard population).

National Data Source: National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data are age-adjusted. San Diego County data are not age-adjusted.

In San Diego County, according to the California Health Interview Survey, 58.9% of adults aged 18 years and older with disabilities reported sufficient emotional support in 2003.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2003 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

### 6-6. Increase the proportion of adults with disabilities reporting satisfaction with life.

Target: 97 percent (age-adjusted).

**National Baseline:** 80 percent of adults aged 18 years and older with disabilities reported satisfaction with life in 2001 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 6-7. Reduce the number of people with disabilities in congregate care facilities, consistent with permanency planning principles.

#### **Target and National Baseline:**

Ohiective	Reduction in People With Disabilities in Con-	1997 Baseline	2010 Target		
Objective	gregate Care Facilities	Number of Persons			
6-7a.	Persons aged 22 years and older in 16 or more bed congregate facilities	93,362	46,681		
6-7b.	Persons aged 21 years and under in congregate care facilities	26,028	0		

**National Data Source:** Survey of State Developmental Disabilities Directors, University of Minnesota.

Local Data: No local data available.

## 6-8. Eliminate disparities in employment rates between working-aged adults with and without disabilities.

Target: 80 percent.

**National Baseline:** 43 percent of adults aged 18 through 64 years with disabilities were employed in 1997.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** In San Diego County, according to the California Health Interview Survey, 60.6% of adults with disabilities were employed in 2005.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2005 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 9/2012).

# 6-9. Increase the proportion of children and youth with disabilities who spend at least 80 percent of their time in regular education programs.

Target: 60 percent.

**National Baseline:** 45 percent of children and youth aged 6 to 21 years with disabilities spent at least 80 percent of their time in regular education programs in the 1995–96 school year.

**National Data Source:** Data Analysis System (DANS), U.S. Department of Education, Office of Special Education.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data refer to persons aged 6 through 21 years, while San Diego County data refer to persons aged 0 through 11 years. Additionally, Healthy People data refer to persons who spent at least 80 percent of their time in regular education programs. San Diego County data do not address the time students spent in regular education programs.

In San Diego County, 4.5% of children aged 0 through 11 years had conditions that limited or prevented his or her ability to do regular school work in 2005.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2005 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

## 6-10. Increase the proportion of people with disabilities who report having access to health and wellness programs.

Target: 63 Percent (age-adjusted).

**National Baseline:** 48 percent of percent of persons aged 18 years and older with disabilities reported they now have access to a health club, wellness program or fitness facility that meets their needs, if they want to use one.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 6-11. Reduce the proportion of people with disabilities who report not having the assistive devices and technology needed.

Target: 7 Percent (age-adjusted).

**Baseline:** 10 percent of persons aged 18 years and older with disabilities reported they know equipment they need but do not have.

National Data source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.



# 6-12. Reduce the proportion of people with disabilities reporting environmental barriers to participation in home, school, work, or community activities.

#### **Target and National Baseline:**

	Reduction in People Aged 18 Years and Older With Disabilities Who Report Encountering	2002 Baseline	2010 Target		
	Barriers to Participation in Activities	Percent			
6-12a.	At home	10	9		
6-12b.	At school	6.1	5.7		
6-12c.	In workplace	7.7	7.0		
6-12d.	In community	11	7		

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.



### 6-13. Increase the number of Tribes, States, and the District of Columbia that have public health surveillance and health promotion programs for people with disabilities and caregivers.

#### **Target and National Baseline:**

Ohiective	Increase in Public Health Surveillance and Health Promotion Programs for	1999 Baseline	2010 Target		
Objective	People With Disabilities and Caregivers	Nun	nber		
6-13a.	States and the District of Columbia – Surveillance programs for people with disabilities.	14	51		
6-13b.	Tribes - Surveillance programs for people with disabilities.	Not Developed			
6-13c.	States and the District of Columbia – Health pro- motion programs for people with disabilities.	14	51		
6-13d.	Tribes – Health promo- tion programs for peo- ple with disabilities.	Not Developed			
6-13e.	States and the District of Columbia – Surveillance programs for caregivers.	0	51		
6-13f.	Tribes – Surveillance programs for caregivers.	Not Dev	veloped		
6-13g.	States and the District of Columbia – Health pro- motion programs for caregivers.	0 51			
6-13h.	Tribes – Health promo- tion programs for care- givers.	Not Developed			

**National Data Source:** Tribal, State, and District of Columbia reports; CDC, Office on Disability and Health.

**Local Data:** Objective is not applicable for local jurisdictions.

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### SAN DIEGO COUNTY

Chapter 7

### Educational and Community Based Programs

Healthy People 2010 Goal: Increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and improve health and quality of life.

Educational and community-based programs are intended to reach people outside of conventional health care settings. A successful medical and health care system is critical to individual health and quality of life. However, people working together to create a healthier community plays a significant role as well.<sup>1</sup>

A healthy community depends on making changes within existing systems, such as improving sidewalks and lighting to make a community more walkable, or increasing law enforcement presence so that residents feel safe outdoors. Successful communities involve groups from both the public and private sector.



## Healthy Communities Involve Many Components of Their Community:<sup>1</sup>

- Public health
- Health care
- Local business
- Local government
- Schools
- Civic organizations
- Voluntary health organizations
- · Faith-based organizations
- Park and recreation departments
- Private citizens

Healthy communities address the multiple determinants of a health problem, including behavioral, social, and environmental factors. Using this information, they implement education and intervention strategies within a variety of settings, including health care facilities, schools, select population groups, and worksites.<sup>1</sup>

### School Setting

The school setting has more influence on the lives of children and young adults than any other social establishment except for the family. More than 95% of children ages 5 through 17 years are enrolled in school, where they spend a significant amount of time during their day. Schools generally provide a positive atmosphere that enhances the health and well-being of children. However, national dropout rates still average 8.1 percent.<sup>4</sup>

Healthy children learn better than children with health problems. Completing a high school education is more important than ever, serving in many markets as a minimum requirement into the labor force. Additional education and training for skilled work often requires a high school diploma. However, despite the increased importance of a high school education, the high school completion rate has increased only slightly over the last 30 years.<sup>2</sup>

While schools alone cannot address the health and social problems of their children, they do have an interest in addressing their needs. Through the environment and curriculum provided, the school can provide education and interventions to reduce risky health behaviors and improve the health status of their students.<sup>1</sup>



### **HP 2010 Objectives**

#### 7-1. Increase high school completion.

Target: 90 percent.

**National Baseline:** 85 percent of persons aged 18 to 24 years had completed high school in 1998.

**National Data Source:** Current Population Survey, U.S. Department of Commerce, Bureau of the Census.

**Local Data:** In San Diego County, according to the California Department of Education for 2009, the high school graduation rate was 83.1%.

**Local Data Source:** California Department of Education, Educational Demographics Office, Graduation rates based on NCES Definition, San Diego County 2009-2010; (accessed July 27, 2012).



7-2. Increase the proportion of middle, junior high, and senior high schools that provide school health education to prevent health problems in the following areas: unintentional injury; violence; suicide; tobacco use and addiction; alcohol and other drug use; unintended pregnancy, HIV/AIDS, and STD infection; unhealthy dietary patterns; inadequate physical activity; and environmental health.

#### **Target and National Baseline:**

Objective	Schools Providing School Health Education in Pri-	1994 Baseline	2010 Target					
	ority Areas	Perd	cent					
7-2a.	All components	28	70					
	Individual components to prevent health problems in the following areas:							
7-2b.	Unintentional injury	66	90					
7-2c.	Violence	58	80					
7-2d.	Suicide	58	80					
7-2e.	Tobacco use and addic- tion	86	95					
7-2f.	Alcohol and other drug use	90	95					
7-2g.	Unintended pregnancy, HIV/AIDS, and STD infection	65	90					
7-2h.	Unhealthy dietary patterns	84	95					
7-2i.	Inadequate physical ac- tivity	78 90						
7-2j.	Environmental health	60	80					

**National Data Source:** School Health Policies and Programs Study (SHPPS), CDC, NCCDPHP.

Local Data: No local data available.



7-3. Increase the proportion of college and university students who receive information from their institution on each of the six priority health-risk behavior areas.

Target: 25 percent.

National Baseline: 6 percent of undergraduate students received information from their college or university on all six topics in 1995: injuries (intentional and unintentional), tobacco use, alcohol and illicit drug use, sexual behaviors that cause unintended pregnancies and sexually transmitted diseases, dietary patterns that cause disease, and inadequate physical activity.

**National Data Source:** National College Health Risk Behavior Survey, CDC, NCCDPHP.

Local Data: No local data available.

7-4. Increase the proportion of the Nation's elementary, middle, junior high, and senior high schools that have a nurse-to-student ratio of at least 1:750.

#### **Target and National Baseline:**

Objective	Increase in Schools With Nurse-to-Student Ratio of at Least 1:750	Baseline (year)	2010 Target
		Percent	
7-4a.	All middle, junior high, and senior high schools	28 (1994)	50
7-4b.	Senior high schools	26 (1994)	50
7-4c.	Middle and junior high schools	32 (1994)	50
7-4d.	Elementary schools	53 (2000)	60

National Data Source: School Health Policies and

Programs Study (SHPPS), CDC, NCCDPHP.

### Worksite Setting

In the United States, there are 142 million full— and part-time workers, including armed forces. The growing cost of health care together with increases in preventable illnesses highlight the need for comprehensive worksite health promotion programs. Programs implemented in corporate businesses have resulted in reduced health care costs, improved worker morale, decreased absenteeism, and improved behaviors associated with productivity. However, smaller companies have not achieved the same success.

Worksite health promotion has been shown to reduce health risks and improve the quality of life of employees. Interventions can be delivered at the worksite, such as posting signs to encourage stair use or offering health education classes. Offsite interventions can be encouraged as well by offering discounts for gym memberships or weight management programs. Employee benefit plans can also encourage wellness by including flu shots or cancer screenings.<sup>3</sup>



### **HP 2010 Objectives**

7-5. Increase the proportion of worksites that offer a comprehensive employee health promotion programs to their employees.

**Target and National Baseline:** 

Objective	Increase in Worksites Offer- ing a Comprehensive Em- ployer-Sponsored Health	1999 Baseline	2010 Target
		Percent	
7-5a.	Worksites with fewer than 50 employees	Not Developed	
7-5b.	Worksites with 50 or more employees	34	75
7-5c.	Worksites with 50 to 99 employees	33	75
7-5d.	Worksites with 100 to 249 employees	33	75
7-5e.	Worksites with 250 to 749 employees	38	75
7-5f.	Worksites with 750 or more employees	50	75

**National Data Source:** National Worksite Health Promotion Survey, Association for Worksite Health Promotion (AWHP) and OPHS, ODPHP, Partnership for Prevention.

Local Data: No local data available.

7-6. Increase the proportion of employees who participate in employer-sponsored health promotion activities.

Target: 88 percent.

**National Baseline:** 67 percent of employees aged 18 years and older participated in employer-sponsored health promotion activities in 1994.

National Data Source: National Health Inter-

view Survey (NHIS), CDC, NCHS.

### **Community Setting & Select Populations**

Health promotion in schools and worksites provide targeted intervention for specific segments of the population. In order to reach the entire population, community-based programs are needed. Educational, policy, and environmental changes can be made through interventions set forth by public facilities, local government agencies, social services, faith-based, and civic organizations. Selecting the appropriate channels through which to provide health promotion interventions and activities will depend on the make-up of the community.<sup>1</sup>

Faith-based organizations can be of particular value in eliciting community participation due to the level of trust already established. They can also be an effective means of reaching vulnerable or underserved populations. For any community, health promotion programs need to be sensitive to the cultural traditions, norms, and beliefs of the community they serve.<sup>1</sup>

## A community health promotion program should include:<sup>1</sup>

- 1. Community participation from at least three community sectors.
- 2. Community assessment to determine health problems, resources, perceptions and priorities.
- 3. Measurable objectives to address outcomes, risk factors, or perceptions and priorities.
- 4. Monitoring and evaluation of processes
- 5. Comprehensive, multifaceted, culturally relevant interventions with multiple targets for change.

### **HP 2010 Objectives**

Objectives 7-7 through 7-9, pertaining to the health care setting, were deleted by the Federal Government at midcourse review.

7-10. (Not Developed) Increase the proportion of Tribal and local health service areas or jurisdictions that have established a community health promotion program that addresses multiple Healthy People 2010 focus areas.

**Potential Data Source:** Directors of Health Promotion and Education survey (formerly the Association of State and Territorial Directors of Health Promotion and Public Health Education).



# 7-11. Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs.

#### **Target and National Baseline:**

Objective	Increase in Local Health Department Community Health Promotion and Disease Prevention Pro- grams That Are Cultural- ly Appropriate and Lin- guistically Competent	1996-97 2010 Baseline Target  Percent	
7-11c.	Cancer	30	50
7-11g.	Educational and commu- nity-based programs	33	50
7-11h.	Environmental health	22	50
7-11i.	Family planning	42	50
7-11m.	Heart disease and stroke	28	50
7-11n.	HIV	45	50
7-11o.	Immunizations and in- fectious diseases	48	50
7-11q.	Maternal, infant (and child) health	47	50
7-11r.	Mental health (and mental disorders)	18	50
7-11s.	Nutrition and over- weight	44	50
7-11t.	Occupational safety and health	13	50
7-11u.	Oral health	25	50
7-11v.	Physical activity and fitness	21	50
7-11y.	Sexually transmitted diseases	41	50
7-11z.	Substance abuse (alcohol and other drugs)	26	50
7-11aa.	Tobacco use	24	50

Note: Objectives 7-11a, b, d, e, f, j, k, l, p, w, x, bb were deleted by the Federal Government at midcourse review.

Local Data: In San Diego County, Public Health Services have established culturally appropriate and linguistically competent community health promotion and disease prevention programs for: 7-11g (educational and community-based programs); 7-11h (environmental health); 7-11n (HIV); 7-11o (immunizations and infectious diseases); 7-11q (maternal, infant and child health); 7-11r (mental health and mental disorders); 7-11s (nutrition and overweight); 7-11u (oral health); 7-11v (physical activity and fitness); 7-11y (sexually transmitted diseases); and 7-11aa (tobacco use).

San Diego County Public Health Services do not have culturally appropriate and linguistically competent community health promotion and disease prevention programs for: 7-11c (cancer); 7-11i (family planning); and 7-11m (heart disease and stroke).



# 7-12. Increase the proportion of older adults who have participated during the preceding year in at least one organized health promotion activity.

**Target:** 90 percent (age-adjusted).

**National Baseline:** 12 percent of adults aged 65 years and older participated during the preceding year in at least one organized health promotion activity in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

### References

- 1 U.S. Department of Health and Human Services, "Educational and Community-Based Programs" in Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health, 2 vols. (Washington DC: U.S. Government Printing Office. November, 2000), <a href="https://www.healthypeople.gov/2010/Document/pdf/Volume1/07Ed.pdf">https://www.healthypeople.gov/2010/Document/pdf/Volume1/07Ed.pdf</a> (Accessed August 29, 2012).
- 2 U.S. Department of Education Institute of Education Sciences, National Center for Education Statistics, "Dropout Rates in the United States: 2000", <a href="http://nces.ed.gov/pubs2002/droppub">http://nces.ed.gov/pubs2002/droppub</a> 2001/11.asp, (Accessed September 6, 2012).
- 3 Centers for Disease Control and Prevention, National Center for Health Marketing (NCHM), Community Guide Branch, "Worksite Health Promotion", http://www.thecommunityguide.org/worksite/index.html, February 2009 (Accessed September 6, 2012).
- 4 National Center for Educational Statistics, Fast facts, Drop Out Rates, <a href="http://nces.ed.gov/fastfacts/display.asp?id=16">http://nces.ed.gov/fastfacts/display.asp?id=16</a>, (Accessed September 10, 2012).
- 5 U.S. Census Bureau, 2009 American Community Survey, Table DP03, <a href="http://factfinder2.census.gov">http://factfinder2.census.gov</a>, (Accessed September 10, 2012).

Chapter 8

## Environmental Health

Healthy People 2010 Goal: Promote health for all through a healthy environment.

Environmental health refers to all characteristics of human health, disease, and injury that are determined or influenced by either the natural or manmade environment. Environmental health includes the study of the pathological effects of chemical, physical, and biological agents, the cleanliness and quality of air, water, and soil, and the effects of the manmade environment such as how and where a society builds its communities, parks, and roadways. <sup>2</sup>

The environment has a great influence on human health and development, and together with genetic factors and personal behavior is one of the primary determinants of health and quality of life. In fact, it has been estimated that poor environmental quality is directly responsible for one-quarter of all preventable ill health worldwide. For this reason, protecting the environment has been a central component of public health practice since 1878.<sup>2</sup>





### **Environmental Health Focus Areas**

- Outdoor Air Quality
- Water Quality
- Toxics and Waste
- Global Environmental Health
- Infrastructure and Surveillance
- Healthy Homes and Healthy Communities

### Outdoor Air Quality

Despite progress toward reducing toxic air emissions, air pollution is still a major public health and environmental problem in the United States. Poor air quality can cause premature death, cancer, and permanent damage to respiratory and cardiovascular systems. It can also cause great damage to crops and buildings, and disrupt the natural chemistry in water.<sup>2</sup>

Each year, millions of tons of toxic air pollutants are released into the air. Motor vehicles and other transportation sources produce dangerous ozone, nitrogen oxide and carbon dioxide emissions, and contribute to poor air quality.<sup>2</sup>

In Southern California, wildfires add to the problem. Smoke from wildfires is a mixture of gases and particles from burning trees and other materials. For people with heart or lung disease, such as asthma or respiratory allergies, the smoke might worsen symptoms. When smoke levels are high enough, even healthy people might experience shortness of breath, wheezing, chest discomfort, coughing, and the inability to breathe normally.<sup>3</sup>



### **HP 2010 Objectives**

8-1. Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's healthbased standards for harmful air pollutants.

#### **Target and National Baseline:**

Objective	Reduction in Air Pollu- tants	1997 Baseline	2010 Target
		Percent	
8-1a.	Ozone*	43	0
8-1b.	Particulate matter*	12	0
8-1c.	Carbon monoxide	20	0
8-1d.	Nitrogen dioxide	5	0
8-1e.	Sulfur dioxide	2	0
8-1f.	Lead	<1	0
		Number	
8-1g.	Total number of people	137,019,000	0

\*The targets of zero percent for ozone and particulate matter are set for 2012 and 2018, respectively.

Note: For the purpose of this objective, EPA is counting persons living in nonattainment areas only.

Note: Data for population groups currently are not analyzed.

National Data Source: Air Quality System (AQS), U.S. Environmental Protection Agency (EPA), Office of Air and Radiation (OAR), Office of Air Quality Planning and Standards (OAQPS).

## 8-2. Increase use of alternative modes of transportation to reduce motor vehicle emissions and improve the Nation's air quality.

#### **Target and National Baseline:**

Objective	Increase in Use of Alter- native Modes of Trans- portation	Baseline (year)	2010 Target
		Percent	
8-2a.	Trips made by bicycling	0.9 (1995)	1.8
8-2b.	Trips made by walking	5.4 (1995)	10.8
8-2c.	Trips made by transit	1.8 (1995)	3.6
8-2d.	Persons who telecom- mute	2.0 (2001)	4.0

**National Data Source:** National Household Travel Survey (NHTS), U.S. Department of Transportation.

Local Data: No local data available.



## 8-3. Improve the Nation's air quality by increasing the use of cleaner alternative fuels.

Target: 8.0 percent.

**National Baseline:** Cleaner alternative fuels represented 0.8 percent of U.S. motor fuel consumption in 1997.

**National Data Source:** Alternatives to Traditional Transportation Fuels, U.S. Department of Energy, Energy Information Administration.

Local Data: No local data available.

## 8-4. Reduce air toxic emissions to decrease the risk of adverse health effects caused by airborne toxics.

Target: 2.0 million tons.

**National Baseline:** 8.1 million tons of air toxics were released into the air in 1993.

**National Data Source:** National Emissions Inventory (NEI), U.S. Environmental Protection Agency (EPA), Office of Air and Radiation (OAR), Office of Air Quality Planning and Standards (OAQPS).



## Water Quality

All water supply systems aim to provide drinking water that is free of biological or chemical disease-causing agents. Considerable advances have been made in technologies used to provide clean drinking water over the last one hundred years. Most water-borne diseases early in the 20th century were due to bacteria contamination. Since the 1970s, protozoa and chemicals have become the major causes of waterborne disease.<sup>2</sup>

In the United States, the Environmental Protection Agency (EPA) regulates all public water systems, from which approximately 286 million Americans received their water. However, another 15% of Americans, or 45 million people, get their water from private wells that are not regulated by the EPA. While these private ground water wells can provide clean water that is safe to drink, they can also become contaminated and lead to illness.<sup>4</sup>

In addition to drinking water, the safety of lakes, rivers, and streams used for fishing and other recreational purposes must be monitored. Toxic chemicals and biological substances that are improperly disposed of can contaminate these water sources. Thus, the safety of fish used for food as well as individuals exposed to the water during recreational activities is threatened.



### **HP 2010 Objectives**

8-5. Increase the proportion of persons served by community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act.

Target: 95 percent.

**National Baseline:** 84 percent of persons served by community water systems received drinking water that met SDWA (Public Law 93-523) regulations in 1995.

National Data Sources: Potable Water Surveillance System (PWSS) and Safe Drinking Water Information System (SDWIS), EPA, Office of Water (OW), Office of Ground Water and Drinking Water (OGWDW).

Local Data: No local data available.

8-6. Reduce waterborne disease outbreaks arising from water intended for drinking among persons served by community water systems.

Target: 2 outbreaks.

**National Baseline:** 6 outbreaks per year originated from community water systems (1987–96 average).

National Data Source: State Reporting Systems,

CDC. NCID.

### 8-7. Reduce per capita domestic water with-drawals.

Target: 90.9 gallons.

**National Baseline:** 101 gallons of domestic water per capita per day were withdrawn in 1995.

**National Data Source:** Estimated Use of Water in the United States, U.S. Department of Interior, U.S. Geological Survey (USGS).

Local Data: No local data available.

# 8-8. Increase the proportion of assessed rivers, lakes, and estuaries that are safe for fishing and recreational purposes.

#### Target and National Baseline:

Objective	Objective Increase percent of rivers, streams and lakes (by miles or acres) assessed as safe	2000 Baseline	2010 Target
,		Percent	
8-8a.	Rivers and streams (miles)	55	58
8-8b.	Lakes, ponds and reser- voirs (acres)	63	66

National Data Sources: National Water Quality Inventory Reports, U.S. Environmental Protection Agency (EPA), Office of Water (OW), Office of Wetlands, Oceans, and Watersheds (OWOW).

Local Data: No local data available.

## 8-9. Increase the proportion of days that beaches are open and safe for swimming.

Target: 98 percent.

National Baseline: 94 percent of beach-days ac-

cessed were found safe in 2002.

National Data Source: BEACH Program, U.S. Environmental Protection Agency (EPA), Office of Water (OW), Office of Science and Technology (OST).

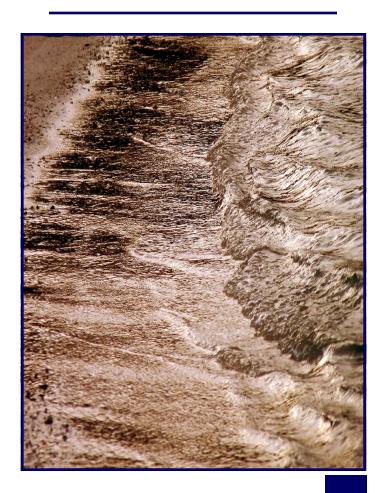
Local Data: No local data available.

# 8-10. Reduce the potential human exposure to persistent chemicals by decreasing fish contaminant levels.

#### **Target and National Baseline:**

Objective	Reduce percent of river miles and lake acres under advisories	2002 Baseline	2010 Target
		Percent	
8-10a.	River miles	15.3	13.8
8-10b.	Lake acreage	32.9	29.6

**National Data Sources:** National Listing of Fish Advisories, Office of Water, U.S. Environmental Protection Agency (EPA), Office of Water (OW), Office of Science and Technology (OST).



### Toxics and Waste

Toxic and hazardous substances that pose an environmental threat and their associated health effects are difficult to identify or quantify. These substances, when deposited on land, can be carried from their source by air and water.<sup>2</sup>

The use of pesticides has become mainstream in the United States for agricultural, commercial, and recreational purposes, as well as in the home. These toxic substances pose a significant health threat, especially if handled inappropriately. Children are at especially great risk of poisoning if they come in contact with pesticides because of their small size.<sup>2</sup>

Lead-based paints used in older homes are of concern due to the potential for poisoning of children. Lead is significantly more dangerous for children than adults because it has the potential to affect a child's developing brain or nerves. The younger the child, the more harmful lead can be. While progress has been made in reducing the blood lead levels in children, lead poisoning is still a preventable environmental health problem that needs to be addressed.

Solid waste requires the use of landfills for disposal, placing a burden on the community even if the waste itself is not dangerous. While many communities have found ways to reduce and better manage solid waste, space is limited and greater recycling and source reduction practices are needed.

#### **HP 2010 Objectives**

## 8-11. Eliminate elevated blood lead levels in children.

Target: 0.0 percent.

National Baseline: 4.4 percent of children aged 1 to 6 years had blood lead levels exceeding 10  $\mu$ g/dl during 1991–94.

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect children aged 1 to 6 years that had blood lead levels exceeding 10  $\mu$ g/dl. San Diego County data reflect children less than 6 years old that had blood levels exceeding 9.5  $\mu$ g/dl.

In San Diego County, 0.5% of children had a blood level exceeding 9.5  $\mu$ g/dl in 2009.

**Source:** California CLPPB—RASCCLE II, 4/3/2012, accessed August 2, 2012.

## 8-12. Minimize the risks to human health and the environment posed by hazardous sites.

#### **Target and National Baseline:**

Objective	Reduce the number of designated hazardous	1995 Baseline	2010 Target
	sites.	Perce	ent
8-12a.	National Priority List sites	1,200	1,176
8-12b.	Resource Conservation and Recovery Act facili- ties	2,475	2,246
8-12c.	Leaking underground storage facilities	370,000	362,600
8-12d.	Brownfield properties	1,500	1,470

National Data Sources: Comprehensive Environmental Response and Cleanup Liability Information System (CERCLIS), EPA, OSWER, Office of Superfund Remediation and Technology Innovation (OSRTI), Resource Conservation and Recovery Act Info (RCRAInfo), Office of Solid Waste (OSW), Office of

Underground Storage Tanks (OUST), Office of Brownfields Cleanup and Redevelopment (OBCR).

Local Data: No local data available.

## 8-13. Reduce pesticide exposures that result in visits to a health care facility.

Target: 11,398 visits per year.

**National Baseline:** 22,933 visits to health care facilities were due to pesticides in 1997. (A total of 105,040 pesticide exposures were documented in 1997.)

**National Data Source:** Toxic Exposure Surveillance System (TESS), American Association of Poison Control Centers.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect all healthcare facility visits. San Diego County data reflect patients treated and discharged from emergency departments or patients who were hospitalized and is based on primary diagnosis only.

In San Diego County, the rate of emergency department discharge for pesticide exposures was 0.2 per 100,000 persons in calendar year 2009.

In San Diego County, the rate of hospitalizations due to pesticide exposure was 0.4 per 100,000 persons, in 2009.

For comparison, an estimated rate of 4.4 healthcare facility visits per 100,000 persons was calculated, based on the Healthy People target and the United States population.

Local Data Source: Hospital Association of San Diego & Imperial Counties, Community Health Improvement Partners, and County of San Diego Health & Human Services Agency, Public Health Services Emergency Medical Services, Emergency Department Discharge Database FY05/06; Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego Health & Human Services Agency, Public Health Services Community Health Statistics, 2011.

# 8-14. (Not Developed) Reduce the amount of toxic pollutants generated and released to the environment.

#### **Potential Objectives:**

**18-14a:** Reduce the amount of toxic chemicals in production-related waste ("Green Index")

**18-14b:** Reduce the amount of toxic chemicals released to the environment ("Clean Index")

**Potential Data Source:** U.S. National Toxics Release Inventory (TRI), U.S. Environmental Protection Agency (EPA), Office of Solid Waste and Emergency Response (OSWER).

Local Data: No local data available.

## 8-15. Increase recycling of municipal solid waste.

Target: 38 percent.

**National Baseline:** 27 percent of total municipal solid waste generated was recycled in 1996 (includes composting).

**National Data Source:** Municipal Solid Waste in the United States, U.S. Environmental Protection Agency (EPA), Office of Solid Waste and Emergency Response (OSWER).

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data includes only solid waste that was recycled. San Diego County data includes all solid waste that was diverted from landfills, which includes source reduction, recycling, reuse, or composting.

In San Diego County, 56% of municipal solid waste was diverted from landfills in 2006.

**Source:** County of San Diego, Five Year CIWMP Review Report, March 2011, accessed August 2, 2012.

## **Healthy Homes & Healthy Communities**

People spend the majority of their time indoors, at either home, school or their place of employment. Indoor allergens, poisons such as radon or lead, and the physical quality of the home or building can lead to poor health.

Indoor allergens from dust mites, cockroaches, mold, rodents, and pets, can worsen respiratory conditions such as asthma and allergies. High radon or lead concentrations can lead to poisoning. Also, substandard housing residents are at risk for fire, electrical injuries, falls, bites, and other illness or injury.<sup>2</sup> Maintaining high standards of quality in the places where people spend the most time will help to ensure better health and quality of life.



#### **HP 2010 Objectives**

#### 8-16. Reduce indoor allergen levels.

#### **Target and National Baseline:**

Objective	Allermon	1998-99 Baseline	2010 Target
Objective	Allergen	Number o	
8-16a.	Group I dust mite indoor allergens that exceed 2 micrograms per gram of dust in the bed	46.2	37.0
8-16b.	Group I dust mite indoor allergens that exceed 10 micrograms per gram of dust in the bed	24.2	19.4
8-16c.	German cockroach aller- gens that exceed 0.1unit per gram of dust in the bed	6.1	4.9

**National Data Source:** National Survey of Lead and Allergens in Housing, NIEHS, and U.S. Department of Housing and Urban Development.

Local Data: No local data available.

# 8-17. (Not Developed) Increase the number of office buildings that are managed using good indoor air quality practices.

**Potential Data Source:** Building Assessment Survey and Evaluation (BASE), U.S. Environmental Protection Agency (EPA), Office of Radiation and Indoor Air, (ORIA).

## 8-18. Increase the proportion of persons who live in homes tested for radon concentrations.

Target: 20 percent (age-adjusted).

**National Baseline:** 17 percent of the population lived in homes in 1998 that had been tested for radon (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 8-19. Increase the number of new homes constructed to be radon resistant.

**Target:** 2.1 million additional new homes.

National Baseline: 1.4 million new homes as of 1997.

**National Data Source:** National Association of Home Builders Research Center Survey, National Association of Home Builders.

Local Data: No local data available.

8-20. Increase the proportion of the Nation's elementary, middle, junior high, and senior high schools that have official school policies ensuring the safety of students and staff from environmental hazards, such as chemicals in special classrooms, poor indoor air quality, asbestos, and exposure to pesticides.

Target: 100 percent.

**National Baseline:** 94 percent of elementary, middle, junior high, and senior high schools had official school policies regarding environmental hazards in 2000.

**National Data Source:** School Health Policies and Programs Study (SHPPS), CDC, NCCDPHP.

Local Data: No local data available.

8-21. Ensure that State and District of Columbia health departments establish training, plans, and protocols and conduct

# annual multi-institutional exercises to prepare for response to natural and technological disasters.

Target: 51.

**National Baseline:** 36 of the 51 jurisdictions (States and District of Columbia) had established preparedness plans and scheduled exercises 2003.

**National Data Source:** Association of State and Territorial Health Officials (ASTHO); CDC, Division of State and Local Readiness (DSLR).

**Local Data:** In San Diego County, according to Emergency Medical Services, disaster preparedness plans and protocols exist.

# 8-22. Increase the proportion of persons living in pre-1950s housing that has been tested for the presence of lead-based paint.

Target: 50 percent (age-adjusted).

**National Baseline:** 16 percent of persons living in homes built before 1950 in 1998 reported that their homes had been tested for the presence of lead-based paint (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 8-23. Reduce the proportion of occupied housing units that have moderate or severe physical problems.

Target: 3.1 percent.

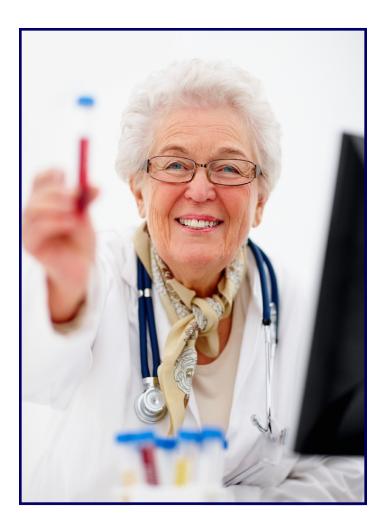
**National Baseline:** 6.5 percent of occupied U.S. housing units had moderate or severe physical problems in 1995.

**National Data Source:** American Housing Survey, U.S. Department of Commerce, Bureau of the Census.

# Infrastructure and Surveillance

Improving health through the reduction of environmental hazards requires collaboration between governmental groups, nonprofit groups and other organizations.

In order to reduce the disease and injury associated with environmental dangers, improvements in response to exposure, monitoring of hazards, and educating the public about environmental risks and the effect on their health is necessary.



#### **HP 2010 Objectives**

# 8-24. Reduce exposure to pesticides as measured by urine concentrations of metabolites.

#### **Target and National Baseline:**

Ohiective	Reduction in Pesticide Exposure as Measured by Metabolites (Pesticide)	1988-94 Baseline*	2010 Target
		Urine Conce measured by atini	µg/g cre-
8-24a.	Objective deleted by Federal Government at midcourse review		
8-24b.	Paranitrophenol (methyl parathions)	3.8	2.7
8-24c.	3, 5, 6-trichloro-2- pyridinol (chlorpyrifos)	8.3	5.8
8-24d.	Isopropoxyphenol (propoxur)	1.6	1.1

\*95 percent of the population had concentrations below this level.

National Data Source: National Report on Human Exposure to Environmental Chemicals, CDC, NCEH; National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Note: Data are from a subset of NHANES data and are not nationally representative. Therefore, a population data template is not available.

8-25. Reduce exposure of the population to pesticides, heavy metals, and selected environmental chemicals, as measured by blood and urine concentrations of the substances or their metabolites

#### **Target and National Baseline:**

Objective		1999-2000 Baseline	2010 Target
		Concentration (μg/L)	
	Heavy Metals		
8-25a.	Arsenic	Not Developed	
8-25b.	Cadmium	1.3	0.9
8-25c.	Lead	4.9	3.4
8.25d.	Manganese	Not Deve	loped
8-25e.	Mercury, children aged 1 to 5 years.	2.3	1.6
	Pesticides		
8-25f.	2, 4-D	1.27 (yrs 2001-02)	0.89
8-25g.	o-phenylphenol	2.0	1.4
8-25h.	cis- and trans- Permethrins	Not Developed	
8-25i.	Diazinon	Below limit of detection	
	Persistent Chemicals		
8-25j.	Polychlorinated biphen- yls	Not Developed	
8-25k.	Dioxins	Not Deve	loped
8-25l.	Furans	Not Deve	loped
	Organochlorine compou	nds	
8-25m.	Chlordane (oxychlordane)	44.9	31.4
8-25n.	Dieldrin	20.3 (yrs 2001-02)	14.2
8-25o.	DDT (DDE)	1780	1250
8-25p.	Lindane (beta-HCH)	68.9	48.2
	Heavy Metals		_

Objective		1999-2000 Baseline	2010 Target
		Concentrati	ion (μg/L)
8-25q.	Mercury - Females aged 16-49	7.1	5.0
	Organochlorine Compounds	Concentration (ng/g)	
8-25r.	Chlordane - trans- Nonachlor	79.4	55.6
8-25s.	Chlordane - heptachlor epoxide	23.9	16.7

**National Data Source:** National Report on Human Exposure to Environmental Chemicals, CDC, NCEH, and the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.



# 8-26. Improve quality, utility, awareness, and use of existing information systems for environmental health.

Target: 30 states.

**National Baseline:** 15 states used health information systems to monitor environmental health in 2004.

**National Data Source:** National Environmental Public Health Tracking Network, (EPHT), CDC, NCEH.

Local Data: No local data available.

8-27. Increase or maintain the number of Territories, Tribes, and States, and the District of Columbia that monitor diseases or conditions that can be caused by exposure to environmental hazards.

#### **Target and National Baseline:**

Objective	Disease	1997 Baseline	2010 Target
Objective	Jiscuse	Numb Jurisdi	
8-27a.	Lead poisoning	51	51
8-27b.	Pesticide poisoning	20	25
8-27c.	Mercury poisoning	14	20
8-27d.	Arsenic poisoning	10	15
8-27e.	Cadmium poisoning	10	15
8-27f.	Methemoglobinemia	9	15
8-27g.	Acute chemical poisoning*	8	15
8-27h.	Carbon monoxide poisoning	7	51
8-27i.	Asthma	6	25
8-27j.	Hyperthermia	4	10
		1999-2000 Baseline	2010 Target
		Number of Jurisdictions	
8-27k.	Hypothermia	4	51
8-27o.	Birth defects	35	51

<sup>\*</sup>Includes chemicals not covered elsewhere in the table.

Note: Target and baseline data are for States and the District of Columbia. The targets will be adjusted as data for Tribes and Territories become available.

**8-27I, 8-27m, 8-27n:** Objectives deleted by Federal Government at midcourse review.

**National Data Sources:** Periodic surveys, Public Health Foundation and Council of State and Territorial Epidemiologists, Epidemiologists, and the National Center on Birth Defects and Developmental Disabilities, CDC.

#### Local Data:

**8-27a:** In San Diego County, according to the Public Health Services Strategic Plan, diseases or conditions that can be caused by lead poisoning are monitored.

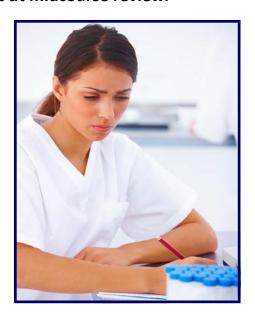
**8-27i:** In San Diego County, according to Emergency Medical Services, diseases or conditions that can be caused by asthma are monitored.

**8-27j:** In San Diego County, according to Emergency Medical Services, diseases or conditions that can be caused by hyperthermia are monitored.

**8-27k**: In San Diego County, according to Emergency Medical Services, diseases or conditions that can be caused by hypothermia are monitored.

**8-27b-h, 8-27o:** Objective is not applicable for local jurisdictions.

## 8-28. Objective deleted by Federal Government at midcourse review.



## Global Environmental Health

In recent years, tremendous advances have been made in international travel and telecommunications. Air, water and soil resources are being shared at much higher rates, and over large distances. Therefore, each nation's health status impacts all others around the globe.

For this reason, the United States must improve efforts to close the gap between existing and attainable health status of all nations, particularly developing countries. For example, improving the water quality along the U.S.-Mexico border is an international health concern that affects the health of residents of both the United States and Mexico.



#### **HP 2010 Objectives**

8-29. Reduce the global burden of disease due to poor water quality, sanitation, and personal and domestic hygiene.

**Target:** 2,135,000 deaths.

**National Baseline:** 2,668,200 deaths worldwide were attributable to these factors in 1990.

National Data Source: Global Burden of Disease,

World Health Organization.

Local Data: No local data available.

8-30. Increase the proportion of the population in the United States-Mexico border region who have adequate drinking water and sanitation facilities.

#### **Target and National Baseline:**

Objective	Type of Drinking Water and Sanitation Service	1997 Baseline Percent of P Receiving Wo	iter Service
		or Treat	ment
	Wastewater sewer service	2	
8-30a.	Ciudad Acuna	39	49
8-30b.	Matamoros	47	57
8-30c.	Mexicali	80	90
8-30d.	Nogales, Sonora	81	91
8-30e.	Piedras Negras	80	90
8-30f.	Reynosa	57	67
	Wastewater receiving trea	atment	
8-30g.	Ciudad Acuna	0	10
8-30h.	Matamoros	0	10
8-30i.	Mexicali	72	82
8-30j.	Nogales, Sonora	100	100
8-30k.	Piedras Negras	0	10
8-30l.	Reynosa	100	100

National Data Sources: EPA; Office of Water (OW), Office of Wastewater Management (OMW); Mexico's Comisión Nacional de Agua; State and local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association.

**Local Data:** Objectives are not applicable for San Diego Region.

#### References

- 1 World Health Organization (WHO). "Indicators for Policy and Decision Making in Environmental Health". (Draft). Geneva, Switzerland: WHO, 1997.
- 2 U.S. Department of Health and Human Services, "Environmental Health", in Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November, 2000), <a href="http://www.healthypeople.gov/2010/Document/pdf/Volume1/08Environmental.pdf">http://www.healthypeople.gov/2010/Document/pdf/Volume1/08Environmental.pdf</a>, (Accessed August 29, 2012).
- 3 Centers for Disease Control and Prevention, Emergency Preparedness and Response "Fact Sheet: Wildfires", <a href="http://www.bt.cdc.gov/disasters/wildfires/facts.asp">http://www.bt.cdc.gov/disasters/wildfires/facts.asp</a>, April 2007, (Accessed September 6, 2012).
- 4 Centers for Disease Control and Prevention, "Drinking Water", <a href="http://www.cdc.gov/healthywater/drinking/">http://www.cdc.gov/healthywater/drinking/</a>, August 2012, (Accessed September 6, 2012).
- 5 Medline Plus, National Institutes of Health (NIH), U.S. National Library of Medicine, "Lead Poisoning", <a href="http://www.nlm.nih.gov/medlineplus/ency/article/002473.htm">http://www.nlm.nih.gov/medlineplus/ency/article/002473.htm</a>, February 2011, (Accessed September 6, 2012).



Chapter 9

# Family Planning

Healthy People 2010 Goal: Improve pregnancy planning and spacing and prevent unintended pregnancy.

Family planning affects the health and well-being of men, women, children, families, and the community as a whole. With a national goal aimed at preventing unwanted pregnancies and achieving a social normal of intended pregnancies, family planning plays a central role.<sup>2</sup>

Contraceptive use is now mainstream, allowing couples to have control over their fertility, yet half of all pregnancies in the United States are unintended. While the proportion of women of childbearing age who use contraception to prevent pregnancy has risen, many still do not use birth control during intercourse. 2

Unintended pregnancy is costly; economically, medically, and socially. Economically, unintended pregnancies are expensive regardless of the outcome. Medically, unintended pregnancies increase the likelihood of infant and maternal illness, abortion, and future difficulty with intended pregnancies. Socially, unintended pregnancies and births result in lower educational attainment, reduced employment opportunity, increased welfare dependency, and greater potential for child abuse and neglect.<sup>2</sup>

While unintended pregnancies occur among females of all ages, racial groups, socioeconomic levels and marital status, teenagers, African American, and low-income women are most likely to have an unplanned pregnancy.<sup>2</sup>

#### **Unintended Pregnancy Prevention**

- Contraceptive Use
  - Hormonal contraceptives (oral, injectables, implants)
  - Barrier contraceptives (condoms, diaphragm)
  - Spermicides
- Sterilization
- Total abstinence



#### **HP 2010 Indicators**

## 9-1. Increase the proportion of pregnancies that are intended.

Target: 70 percent.

**National Baseline:** 51 percent of all pregnancies among females aged 15 to 44 years were intended in 1995.

**National Data Sources:** National Survey of Family Growth (NSFG), CDC, NCHS; National Vital Statistics System (NVSS), CDC, NCHS; Abortion Provider Survey, The Alan Guttmacher Institute; Abortion Surveillance Data, CDC, NCCDPHP.

Local Data: No local data available.

## 9-2. Reduce the proportion of births occurring within 24 months of a previous birth.

Target: 6 percent.

**National Baseline:** 11 percent of females aged 15 to 44 years gave birth within 24 months of a previous birth in 1995.

**National Data Source:** National Survey of Family Growth (NSFG), CDC, NCHS.

Local Data: No local data available.



# 9-3. Increase the proportion of females at risk of unintended pregnancy (and their partners) who use contraception.

Target: 100 percent.

**National Baseline:** 93 percent of females aged 15 to 44 years at risk of unintended pregnancy used contraception in 1995.

**National Data Source:** National Survey of Family Growth (NSFG), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data include male and female partners. San Diego County data refer to male partners only.

In San Diego County, according to the 2003 California Health Interview Survey, the rate of birth control use among women aged 15 through 44 years who had at least one male sexual partner in the past 12 months and who did not self-report that she was a lesbian, was 68.7%.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2003 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

# 9-4. Reduce the proportion of females experiencing pregnancy despite use of a reversible contraceptive method.

Target: 7 percent.

**National Baseline:** 13 percent of females aged 15 to 44 years experienced pregnancy despite use of a reversible contraceptive method in 1995.

**National Data Sources:** National Survey of Family Growth (NSFG), CDC, NCHS; Abortion Patient Survey, The Alan Guttmacher Institute.

#### 9-5. Increase the proportion of family planning agencies that offer emergency contraception.

Target: 90 percent.

National Baseline: 80 percent of family planning agencies reported offering emergency contracep-

tion in 1999.

National Data Sources: The Alan Guttmacher Insti-

tute (AGI).

Local Data: No local data available.

## 9-6. Increase male involvement in pregnancy prevention and family planning efforts.

#### **Target and National Baseline:**

Objective	Increase the percent of sexually active, unmarried males ages 15 to 24 years, who have been involved in the following ways in the last 12 months.	Baseline (year)	2010 Target
		Percent	
9-6a.	Visited a family planning clinic with their female partner or girlfriend	21	22
9-6b.	Received birth control counseling from a family planning clinic	31	37
9-6c.	Received advice or coun- seling from a doctor on birth control	21	37

National Data Sources: National Survey on Family

Growth (NSFG), CDC, NCHS.

Local Data: No local data available.





## 9-7. Reduce pregnancies among adolescent females.

Target: 43 pregnancies per 1,000.

**National Baseline:** 67 pregnancies per 1,000 females aged 15 to 17 years occurred in 1996.

National Data Sources: Abortion Provider Survey,

The Alan Guttmacher Institute;

National Vital Statistics System-Natality (NVSS-N), CDC, NCHS; National Survey of Family Growth (NSFG), CDC, NCHS; Abortion Surveillance Data, CDC, NCCDPHP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data refer to pregnancies. San Diego County data refer to births.

In San Diego County, according to Maternal Child and Family Health Services, there were 16.2 births per 1,000 females aged 15 to 17 years in 2009.

**Local Data Source:** County of San Diego, Maternal Child and Family Health Services, 2009.

# 9-8. Increase the proportion of adolescents who have never engaged in sexual intercourse before age 15 years.

#### **Target and National Baseline:**

Objective	Increase in Adolescents Aged 15 to 19 Years Never Engaging in Sexu- al Intercourse Before Age 15 Years	1995 Baseline	2010 Target
		Percent	
9-8a.	Females	81	88
9-8b.	Males	79	88

National Data Sources: Females—National Survey of Family Growth (NSFG), CDC, NCHS; Males—National Survey of Adolescent Males (NSAM), Urban Institute.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect females aged 15 through 19 years who did not have sexual intercourse for the first time before the age of 15 years. San Diego County data reflect females aged 15 through 17 years who did not have sexual intercourse for the first time before the age of 13 years.

**9-8a:** In San Diego County, according to the 2009 Youth Risk Behavior Survey, 97.1% of females aged 15 through 17 years reported that they had not had sexual intercourse for the first time before the age of 13 years.

**9-8b:** In San Diego County, according to the 2009 Youth Risk Behavior Survey, 93.8% of males aged 15 through 17 years reported that they had not had not had sexual intercourse for the first time before the age of 13 years.

**Local Data Source:** Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/YouthOnline/app/">http://apps.nccd.cdc.gov/YouthOnline/app/</a> (accessed 7/2012).

# 9-9. Increase the proportion of adolescents who have never engaged in sexual intercourse.

#### **Target and National Baseline:**

Ob	Ohiostivo	Increase in Adolescents Aged 15 to 17 Years Never Engaging in Sexu-	1995 Baseline	2010 Target
		al Intercourse	Perd	cent
9-9	9a.	Females	62	75
9-9	9b.	Males	57	75

National Data Sources: Females—National Survey of Family Growth (NSFG), CDC, NCHS; Males—National Survey of Adolescent Males (NSAM), Urban Institute.

#### Local Data:

**9-9a:** In San Diego County, according to the 2009 California Health Interview Survey, 85.5% of females aged 15 through 17 years reported that they had not had sexual intercourse.

**9-9b:** In San Diego County, according to the 2009 California Health Interview Survey, 76.0% of males aged 15 through 17 years reported that they had not had sexual intercourse.

**Local Data Sources:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 7/2012).



9-10. Increase the proportion of sexually active, unmarried adolescents aged 15 to 17 years who use contraception that both effectively prevents pregnancy and provides barrier protection against disease.

#### **Target and National Baseline:**

Objective	Increase in Contraceptive Use at First Intercourse by Sexually Active, Unmar-	1995 Baseline	2010 Target					
	ried Adolescents Aged 15 to 17 Years	Perd	cent					
	Condom at first intercou	rse						
9-10a.	Females	69	75					
9-10b.	Males	72	83					
	Condom plus hormonal method at first intercourse							
9-10c.	Females	7	9					
9-10d.	Males	8	11					
	Condom at last intercour	rse						
9-10e.	Females	39	49					
9-10f.	Males	70	79					
	Condom plus hormonal method at last inter- course							
9-10g.	Females	7 11						
9-10h.	Males	16 20						

National Data Sources: Females—National Survey of Family Growth (NSFG), CDC, NCHS; Males—National Survey of Adolescent Males (NSAM), Urban Institute.

#### Local Data:

**9-10e:** In San Diego County, according to the 2005 California Health Interview Survey, 65.4% of females aged 15 through 17 years reported that they or their partner had used a condom during their most recent sexual intercourse.

**9-10f:** In San Diego County, according to the 2005 California Health Interview Survey, 88.9% of males aged 15 through 17 years reported that they or their partner had used a condom during their most recent sexual intercourse.

Note: No 2009 data available.

Local Data Source: UCLA Center for Health Policy Research, "2005 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

9-11. Increase the proportion of young adults who have received formal or informal instruction before turning age 18 years on the following reproductive health issues: abstinence, birth control methods, HIV/AIDS prevention through safer sex practices, and sexually transmitted diseases.

#### **Target and National Baseline:**

Objective	mai instruction before turning age 18 years on the following	2002 Baseline	2010 Target	
	reproductive health issues	Perd	cent	
	Formal education/instruction	n		
9-11a.	Abstinence: females	86	88	
9-11b.	Abstinence: males	83	85	
9-11c.	Birth control methods: females	70	73	
9-11d.	Birth control methods: males	66	70	
9-11e.	HIV/AIDS prevention through safer sex practices: females	Not Dev	veloped	
9-11f.	HIV/AIDS prevention through safer sex practices: males	Not Dev	eloped/	
9-11g.	prevention of sexually trans- mitted diseases through safer sex practices: females	Not Developed		
9-11h.	prevention of sexually trans- mitted diseases through safer sex practices: males	Not Developed		
	Informal education/instructi	on		
9-11i.	Abstinence: females	57	62	
9-11j.	Abstinence: males	45	49	
9-11k.	Birth control methods: females	51	57	
9-11l.	Birth control methods: males	33	38	
9-11m.	HIV/AIDS prevention through safer sex practices: females	Not Dev	veloped	
9-11n.	HIV/AIDS prevention through safer sex practices: males	Not Developed		
9-11o.	prevention of sexually trans- mitted diseases through safer sex practices: females	51	60	
9-11p.	prevention of sexually trans- mitted diseases through safer sex practices: males	52	57	

National Data Sources: Females—National Survey of Family Growth (NSFG), CDC, NCHS; Males—National Survey of Adolescent Males (NSAM), Urban Institute.

# 9-12. Reduce the proportion of married couples whose ability to conceive or maintain a pregnancy is impaired.

Target: 10 percent.

National Baseline: 13 percent of married couples

with wives aged 15 to 44 years had

impaired ability to conceive or maintain a pregnan-

cy in 1995.

National Data Source: National Survey of Family

Growth (NSFG), CDC, NCHS.

Local Data: No local data available.



# 9-13. Increase the proportion of health insurance plans that cover contraceptive supplies and services.

Target: 90 percent.

**National Baseline:** 86 percent of U.S. insurers providing employment-based insured health coverage that routinely covered the leading five methods of contraception (diaphragm, implant, injectable, intrauterine device (IUD) and oral contraceptive pills) 2002.

National Data Source: The Allan Guttmacher Institute.

Local Data: No local data available.

#### References

- 1 U.S. Department of Health and Human Services. "Family Planning" in *Healthy People 2010: Midcourse Review*. <a href="http://www.healthypeople.gov/2010/data/midcourse/pdf/fa09.pdf">http://www.healthypeople.gov/2010/data/midcourse/pdf/fa09.pdf</a>, (Accessed September 6, 2012).
- 2 U.S. Department of Health and Human Services. "Family Planning" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="https://www.healthypeople.gov/2010/Document/pdf/Volume1/09Family.pdf">http://www.healthypeople.gov/2010/Document/pdf/Volume1/09Family.pdf</a>, (Accessed August 29, 2012).

Chapter 10

# Food Safety

Healthy People 2010 Goal: Reduce foodborne illnesses.

Commonly called "food poisoning," a foodborne illness is caused by eating or drinking foods or beverages contaminated by a variety of microbes, or pathogens. There are more than 250 different foodborne diseases caused by bacteria, viruses, parasites, harmful toxins, or chemicals. Actual illness rates are difficult to quantify because a count is taken only when the causative organism is confirmed with a laboratory test and reported by a physician. However, it is estimated that 76 million cases of foodborne disease occur in the United States each year.

An outbreak occurs when more than one case of a similar illness results from eating the same food. Improved food production, processing, preparation, and storage practices, together with better epidemiological investigations, have resulted in fewer outbreaks of disease.<sup>2</sup> However, foodborne illnesses still pose a significant public health burden.

Of particular concern is the rise of microbial resistance to drugs such as antibiotics, which are used to treat diseases caused by pathogenic organisms. Drug resistant organisms are not killed by standard antibiotics. This is pertinent to food safety, because antibiotic—resistant pathogens in improperly pre-

pared foods not only cause illness, but also become difficult to treat.



As new pathogens emerge and microorganisms continue to evolve or become resistant to drugs, unexpected outbreaks of illness may occur. This, when considered together with issues such as food preparation and storage practices at home, proper training of retail food industry employees, and an increasingly global food supply, may make food safety an even greater priority in the future.<sup>2</sup>

### **HP 2010 Objectives**

# 10-1. Reduce infections caused by key foodborne pathogens.

#### **Target and National Baseline:**

Objective	Reduction in Infections Caused by Microorganisms	1997 Baseline	2010 Target
	Causea by Microorganisms	Cases per	100,000
10-1a.	Campylobacter species	24.6	12.3
10-1b.	Escherichia coli O157:H7	2.1	1.0
10-1c.	Listeria monocytogenes	0.47	0.24
10-1d.	Salmonella species	13.6	6.8
10-1f.	Postdiarrheal hemolytic ure- mic syndrome (HUS) in chil- dren under 5 years of age	1.8 (2000)	0.9

Note: Objectives 10-1e and 10-1g were deleted by Federal Government at midcourse review.

**National Data Sources:** Foodborne Disease Active Surveillance Network (FoodNet), CDC, NCID; FDA, CFSAN; FSIS, OPHS; and State Agencies.

#### **Local Data:**

**10-1a:** In San Diego County, according to the California Department of Public Health, the rate of confirmed cases of Campylobacter in persons of all ages was 15.4 per 100,000, in 2009.

**10-1b:** In San Diego County, according to the California Department of Public Health, the rate of confirmed cases of Escherichia coli in persons of all ages was 0.5 per 100,000, in 2009.

**10-1c:** In San Diego County, according to the California Department of Public Health, the rate of confirmed cases of Listeria monocytogenes in persons of all ages was 0.4 per 100,000, in 2009.

**10-1d:** In San Diego County, according to the California Department of Public Health, the rate of confirmed cases of Salmonella in persons of all ages was 14.9 per 100,000, in 2009.

**Local Data Source:** CDPH, Infectious Disease Branch, Surveillance & Statistics (accessed 9/10/12).

**10-1f:** In San Diego County, according to the Community Epidemiology Branch, there were too few confirmed cases of postdiarrheal hemolytic uremic syndrome in children under the age of 5 years to calculate a rate in 2009.

Local Data Source: County of San Diego, EISB,

2011.

## 10-2. Reduce outbreaks of infections caused by key foodborne bacteria.

#### **Target and National Baseline:**

Ohiostivo	Reduction in Infections	1997 Baseline	2010 Target	
Objective	Caused by Foodborne Bacteria	Number of Outbreaks per Year		
10-2a.	Escherichia coli 0157:H7	22	11	
110-2b.	Salmonella serotype En- teritidis	44	22	

**National Data Sources:** Foodborne Disease Outbreak Surveillance System, CDC, NCID.

Local Data: No local data available

# 10-3. Prevent an increase in the proportion of isolates of non-Typhi Salmonella species from humans that are resistant to antimicrobial drugs.

#### **Target and National Baseline:**

Objec- tive	Prevention of Increase in Proportion of non-Typhi Salmonella Species isolates	1997 Baseline	2010 Target	
	from humans Resistant to Antimicrobial Drugs	Percent of Isolates		
	Non-Typhi Salmonella fro resistant to:	m humans	that are	
10-3a.	Fluoroquinolones	0.0	0.0	
10-3b.	Third-generation cephalosporins	0.1	0.0	
10-3c.	Gentamicin	3	3.0	
10-3d.	Ampicillin	18	18.0	

Note: Objectives 10-3e through 10-3p were deleted at midcourse review

National Data Sources: National Antimicrobial Resistance Monitoring System: Enteric Bacteria—Salmonella (NARMS: Enteric Bacteria), CDC, NCID; FDA, CVM; USDA, FSIS, and ARS; Foodborne Disease Active Surveillance Network (FoodNet), CDC, FDA, USDA, FSIS.

Local Data: No local data available

## 10-4. Reduce deaths and illness from severe food allergies.

#### **Target and National Baseline:**

Objective		1995 Baseline	2010 Target		
		Percent			
10-4a.	Death*	Not Developed			
	Severe allergic reactions among adults aged 18 years and older.	26 21			

<sup>\*</sup> Proposed data sources: National Vital Statistics System (NVSS-M)

**National Data Sources:** National Survey on Family Growth (NSFG), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.

#### Local Data:

**10-4a:** In San Diego County, there were fewer than five confirmed deaths due to severe food allergies in 2004.

10-4b: No local data available.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, Community Epidemiology, 2004.

## 10-5. Increase the proportion of consumers who follow key food safety practices.

Target: 79 percent.

**National Baseline:** 73 percent of consumers followed key food safety practices in 1998, based on total population of adults who engaged in the practice.

National Data Source: Food Safety Survey (FSS),

FDA and FSIS, USDA.

Local Data: No local data available.

10-6. Improve food employee behaviors and food preparation practices that directly relate to foodborne illnesses in retail food establishments.

#### **Target and National Baseline:**

	Increased percent of ob- served data elements di-	1998 Baseline	2010 Target		
	rectly related to foodborne illness risk that were ob- served to be in compli- ance in the specified retail food establishments.	Percent			
10-6a.	Hospitals	80	85		
10-6b.	Nursing homes	82	87		
10-6c.	Elementary schools	80	85		
10-6d.	Fast food restaurants	74	81		
10-6e.	Full-service restaurants	60	70		
10-6f.	Deli departments	73	80		
10-6g.	Meat/poultry depart- ments	81	86		
10-6h.	Produce departments	76	82		
10-6i.	Seafood departments	83	87		



**National Data Sources:** FDA Retail Food Program Database of Foodborne Illness Risk Factors.

Local Data: No local data available.

## 10-7. Objective deleted by Federal Government at midcourse review.

#### References

- 1 Centers for Disease Control and Prevention, "Foodborne Infections," <a href="http://www.cdc.gov/nczved/divisions/dfbmd/diseases/foodborne infections/technical.html">http://www.cdc.gov/nczved/divisions/dfbmd/diseases/foodborne infections/technical.html</a>, November 2009, (Accessed September 6, 2012).
- 2 U.S. Department of Health and Human Services. "Food Safety" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="https://www.healthypeople.gov/2010/Document/pdf/Volume1/10Food.pdf">https://www.healthypeople.gov/2010/Document/pdf/Volume1/10Food.pdf</a>

(Accessed August 29, 2012).

Chapter 11

# Health Communication

Healthy People 2010 Goal: Use communication strategically to improve health.

Health information can be confusing for anyone, even the most educated health consumers. Clear health communication is an integral part of one's ability to understand and act upon health information, and a critical part of the delivery of quality health care.

By definition, health communication is the development and use of communication strategies to educate, inform and influence individuals and communities to enhance and improve health. Health communication can contribute to all aspects of health care, including disease prevention and health promotion, and is relevant in many contexts, including the following:<sup>1</sup>

#### **Health Communication**

- Health professional-patient relations
- Exposure to, search for, and use of health information
- Adherence to recommendations
- Public health messages
- Dissemination of health risk information (risk communication)
- Images of health in media and culture
- Education about access to health care
- Development of telehealth applications

Millions of adults suffer from low health literacy, which is the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.<sup>2</sup>
People who are low-income or have low educational background are especially at risk.<sup>1</sup> Public health professionals can help raise individual and community level knowledge, and reduce disparities, by presenting health information in a way that is relevant and easy to understand. Clear health communication can also increase the demand for appropriate health services while decreasing the demand for services that are not appropriate.<sup>1</sup>

Health communication occurs in many contexts (school, work, home, doctor's office) and through many channels (interpersonal, organizational, community, mass media). One of the greatest challenges in designing effective health communication techniques is identifying the most favorable contexts (where), channels (how), content (what) and reasons (why) that will encourage people to pay attention to and use the health information they receive.<sup>1</sup>



#### **HP 2010 Objectives**

#### 11-1. Increase the proportion of households with access to the Internet at home.

Target: 80 percent.

**National Baseline:** 26 percent of households had access to the Internet at home in 1998.

Local Data: In 2009, 80% of all households had ac-

cess to the Internet at home.

National and Local Data Source: Current Population Survey (CPS), U.S. Department of Commerce, Bureau of the Census; National Household Education Surveys Program (NHES), National Center for Education Statistics, U.S. Department of Education.

## 11-2. Improve the health literacy of the population.

11-2a. Increase the proportion of persons with proficient health literacy.

Target: 13 percent.

**National Baseline:** 12 percent of persons aged 16 and older scored "proficient" in the health literacy component of the NAAL in 2002.

**National Data Source:** National Assessment of Adult Literacy (NAAL): Health Literacy Component. National Center for Education Statistics, U.S. Department of Education.

Local Data: No local data available.

#### 11-2b. Decrease the proportion of persons with below basic health literacy.

Target: 13 percent.

**National Baseline:** 14 percent of persons aged 16 and older scored "below basic" in the health literacy component of the NAAL in 2003.

**National Data Source:** National Assessment of Adult Literacy (NAAL): Health Literacy Component. National Center for Education Statistics, U.S. Department of Education.

Local Data: No local data available.

# 11-3. Increase the proportion of health communication activities that include research and evaluation.

#### **Target and National Baseline:**

	Increase the proportion of HHS-sponsored health	2005 Baseline	2010 Target		
	communications cam- paigns that include the specified elements	Percent			
11-3a.	Formative evaluation	95 100			
11-3b.	Process evaluation	81 89			
11-3c.	Outcome evaluation	59	65		

**National Data Sources:** Office of Disease Prevention and Health Promotion, Office of the Secretary, U.S. Department of Health and Human Services.

Local Data: No local data available.

#### 11-4. Increase the proportion of healthrelated World Wide Web sites that disclose information that can be used to assess the quality of the site.

#### **Target and National Baseline:**

	Increase the proportion of (102 specified) health-	2006 Baseline	2010 Target	
-	related websites that dis- close the specified infor- mation about the site	Percent		
11-4a.	Identity	<10	19	
11-4b.	Purpose/uses/limitations	35	40	
11-4c.	Content development practices/policies	<1	10	
11-4d.	Privacy policy/protection	75	80	
11-4e.	User feedback/evaluation	59	64	
11-4f.	Content creation/updating	<1	10	
11-4g.	Three or more of above criteria	24	29	

National Data Sources: Office of Disease Prevention and Health Promotion. "Estimating the Proportion of Health-Related Websites Disclosing Information That Can Be Used to Assess Their Quality." Mathematica Policy Research, Inc. May 6, 2006.

#### Local Data:

- **11-4a:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose the identity of the site.
- **11-4b:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose information regarding their purpose/uses/limitations.
- **11-4c:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose their content development practices/policies.
- **11-4d:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose information regarding their privacy policy/protection.
- **11-4e:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose information regarding their user feedback/evaluation.
- **11-4f:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose information regarding their content creation/updating.
- **11-4g:** In San Diego County, Public Health Services, Community Health Statistics Unit Web site pages disclose information regarding three or more of above criteria.

# 11-5. Increase the number of centers for excellence that seek to advance the research and practice of health communication.

Target: 6 (number).

**National Baseline:** There were 4 Centers for Excellence in Health Communication in 2002.

National Data Source: National Cancer Institute

(NCI), NIH.

Local Data: No local data available.

11-6. Increase the Increase the proportion of persons who report that their health care providers have satisfactory communication skills.

#### **Target and National Baseline:**

	Increase proportion of patients aged 18 years and older who report that	2000 Baseline	2010 Target		
Objective	doctors or other health providers always do the following	Percent			
11-6a.	listen carefully to them	57	65		
11-6b.	explain things so they can understand	59	66		
11-6c.	show respect for what they have to say	59	66		
11-6d.	spent enough time with them	46	53		

National Data Sources: Medical Expenditure Panel

Survey (MEPS), AHRQ.

**Local Data:** No local data available.

#### References

- 1 U.S. Department of Health and Human Services. "Health Communication" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="http://www.healthypeople.gov/2010/Document/pdf/Volume1/11HealthCom.pdf">http://www.healthypeople.gov/2010/Document/pdf/Volume1/11HealthCom.pdf</a>, (Accessed August 29, 2012).
- 2 U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, "Health Literacy Improvement," <a href="http://www.health.gov/communication/literacy/default.htm">http://www.health.gov/communication/literacy/default.htm</a>, September 2012, (Accessed September 6, 2012).

Chapter 12

# Heart Disease and Stroke

Healthy People 2010 Goal: Improve cardiovascular health and quality of life through the prevention, detection, and treatment of risk factors; early identification and treatment of heart attacks and strokes; and prevention of recurrent cardiovascular events.

In the United States, heart disease and stroke were the first and fourth leading causes of death in 2009. In that year, 599,413 people died of heart disease and 128,842 people died of stroke, together comprising more than 29% of all deaths in the United States.<sup>1,2</sup>

Heart disease and stroke are also major causes of illness, disability, and increases in health care costs. Coronary heart disease (CHD) accounts for the greatest proportion of heart disease. It is estimated that 12 million people have CHD in the United States.<sup>4</sup> Another 4 million people have cerebrovascular disease, the most common type of which is stroke.<sup>4</sup> Nearly 800,000 strokes occur each year in the United States.<sup>3</sup>

Heart disease and stroke share many risk factors, many of which can be prevented through lifestyle changes. Primary prevention to promote heart-healthy behaviors is a key strategy in reducing development of heart disease or stroke.<sup>4</sup> For example, smoking cessation has instant health benefits for both men and women. The risk of dying within 15 years is cut in half for people who quit smoking before the age of 50 years.<sup>4</sup> Since smoking begins in adolescence, primary prevention efforts should be increased throughout the school-aged years.

# Risk factors for both heart disease & stroke include:

Cigarette smoking
Overweight and obesity
High blood pressure
High blood cholesterol

Overweight and obesity affects an increasing percentage of the population, and prevention continues to be a challenge. However, people who are overweight or obese are at increased risk of high blood pressure, high cholesterol, diabetes, CHD, stroke, and many other diseases. Even moderate physical activity can help to control weight and have significant health benefits, but efforts to increase physical activity have proven difficult. Thus, primary prevention in the form of education about balancing calorie intake with physical activity is critical.<sup>4</sup>

More detailed information about coronary heart disease, stroke, high blood pressure and high cholesterol will be discussed in the sections to follow.

## Coronary Heart Disease

Heart disease is a broad description of many specific heart conditions, the most common of which in the United States is coronary heart disease (CHD). CHD happens as the result of atherosclerosis—when the coronary arteries that supply blood to the heart harden and get smaller because they fill with plaque (fatty deposits). Plaque in these arteries makes it harder for blood to travel through them to give nutrients and oxygen to the heart.

Angina (chest pain or discomfort) or arrhythmias (irregular heart beats) can develop as the result of CHD. Eventually, CHD can lead to a heart attack or heart failure, where the heart can no longer pump blood normally. The risk of stroke is also increased with CHD due to decreased blood flow to the brain.

#### CHD Risk Factors<sup>6</sup>

- Increasing age people 65 years and older are at greater risk
- Male gender men are more likely than women to have CHD
- Heredity or genetics the risk of CHD increases 2 to 3 times if a close relative has the disease
- Tobacco use
- High blood cholesterol above 240mg/dL
- Physical inactivity
- Obesity BMI 30 or above
- Diabetes glucose 126 or higher
- High blood pressure systolic above
   130 mm Hg, diastolic above 80 mm Hg

While some risk factors for CHD cannot be modified, treated or controlled, many can. The more risk factors that are present, the greater the chance of developing CHD. Thus, screening for risk factors such as high blood pressure and high cholesterol is an important step in identifying people at high risk of developing the disease. Treating and controlling these conditions, together with behavioral changes such as quitting smoking and increasing physical activity, can reduce the risk of CHD.<sup>4</sup>

#### **CHD Prevention**

- Quit Smoking can decrease the risk of CHD by at least half
- · Be physically active
- Eat healthful foods consume at least five servings of fruits and vegetables daily
- Control weight
- Avoid drinking too much alcohol no more than 1 drink per day for
  women and 2 drinks per day for men
- See a doctor regularly to:
  - Monitor cholesterol level
  - Check blood pressure
  - Control diabetes



#### **HP 2010 Objectives**

## 12-1. Reduce coronary heart disease deaths.

Target: 162 deaths per 100,000 population (age-adjusted).

**National Baseline:** 203 coronary heart disease deaths per 100,000 population in 1999 (age-adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

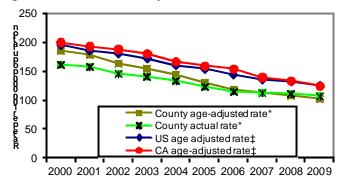
**Local Data:** In San Diego County, the age-adjusted coronary heart disease death rate was 102.5 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB, 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted CHD death rate

decreased steadily from 2000 through 2009, and has remained below the age-adjusted rates for the U.S. and California (Figure 1). Regional level data is available by gender, race/ethnicity and age (Figure 2).

Figure 1. CHD Deaths by Year



\* Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/30/2012: http://wonder.cdc.gov/cmf-icd10.html.

Figure 2. CHD<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cer	ntral	So	uth	E	ast		orth and	Cou	inty	County age-
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	adjusted rate*
Total**	552	102.8	578	92.6	507	98.7	516	112.0	639	135.7	613	105.8	3,415	107.2	102.5
Gender															
Male	294	106.3	301	97.0	292	112.3	276	120.7	387	168.4	335	118.0	1,891	119.0	135.4
Female	258	99.0	277	88.2	215	84.8	240	103.4	252	104.5	278	94.1	1,524	95.5	76.6
Race/ Ethnicity															
White	474	150.0	489	126.5	262	191.3	269	237.8	544	181.7	530	158.9	2,575	162.4	106.1
Black	9	40.3	8	39.6	85	128.1	14	68.9	14	55.1	10	85.0	140	84.2	130.1
Hispanic	40	26.8	35	43.2	85	39.1	175	69.9	59	57.6	39	24.1	435	45.2	101.7
API‡	23	77.0	40	37.4	69	96.6	50	81.0	12	61.5	25	50.2	220	64.8	74.5
Other‡	<5	§	<5	§	<5	§	8	52.4	10	41.6	7	31.7	37	28.1	49.7
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	65	23.9	67	19.0	113	40.6	72	31.2	145	57.9	99	33.2	564	33.5	
65+	487	799.5	511	631.9	394	866.6	443	915.4	493	853.7	514	686.8	2,849	773.7	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by

CoSD, HHSA, Community Health Statistics, 12/12/2011.

oth-

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> CHD Death refers to (underlying cause of death) ICD-10 codes I11, I20-I25.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or er. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

#### **CHD Local Findings**

- On average, 3,921 residents die from CHD every year. -Death, 2000-2009
- San Diego County exceeded the HP2010 goal of reducing CHD deaths . -Death, 2009
- Males have a higher rate of death from CHD than females. -Death, 2009
- Whites were more likely than other racial/ ethnic groups to die of CHD. -Death, 2009

12-2. Increase the proportion of adults aged 20 years and older who are aware of the early warning symptoms and signs of a heart attack and the importance of accessing rapid emergency care by calling 911.

Target: 50 percent.

**National Baseline:** 46 percent of adults aged 20 years and older were aware of the early warning symptoms and signs of a heart attack and the importance of accessing rapid emergency care by calling 911 in 2001.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

12-3. Increase the proportion of eligible patients with heart attacks who receive timely artery-opening therapy from symptom onset.

#### **Target and National Baseline:**

	Increase the percent of	2000-04	2010	
	aliaible beart attack na	Baseline	Target	
Objective	tients who receive the specified treatment.	Perd	cent	
12-3a.	Fibronlytics within one hour of symptom onset	4.0	6.0	
117-3h	percutaneous interven- tion (PCI) within 90 minutes of symptom on-	0.64	0.67	
	set			

**National Data Sources:** National Registry of Myocardial Infarction (NRMI–4), National Acute Myocardial Infarction Project, Centers for Medicare & Medicaid Services (CMS).

Local Data: No local data available.

12-4. Increase the proportion of persons trained in cardiopulmonary resuscitation (CPR) in the past year.

Target: 12 percent.

**National Baseline:** 8 percent of persons aged 20 years and older were trained in cardiopulmonary resuscitation (CPR) in the past year in 2001.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

12-5. (Not Developed) Increase the proportion of eligible persons with witnessed out-of-hospital cardiac arrest who receive their first therapeutic electrical shock within 6 minutes after collapse recognition.

**Potential National Data Source:** National EMS Information System (NEMSIS), National Association of State EMS Directors (NASEMSD), in coordination with U.S. Department of Transportation, NHTSA, and HRSA, Trauma/EMS Systems.



# 12-6. Reduce hospitalizations of older adults with congestive heart failure as the principal diagnosis.

#### **Target and National Baseline:**

	Reduce the rate of hospi- talizations due to conges-	1997 Baseline	2010 Target		
	tive heart failure.	Rate per 1,000 pop- ulation			
12-6a.	Adults aged 65 to 74 years	13.2	6.5		
12-6b.	Adults aged 75 to 84 years	26.7	13.5		
12-6c.	Adults aged 85 years and older	52.7	26.5		

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

#### Local Data:

**12-6a:** In San Diego County, the rate of hospitalization for congestive heart failure among adults ages 65 to 74 years was 1.5 per 1,000 residents in 2009.

**12-6b:** In San Diego County, the rate of hospitalization for congestive heart failure among adults ages 75 to 84 years was 3.7 per 1,000 residents in 2009.

**12-6c:** In San Diego County, the rate of hospitalization for congestive heart failure among adults ages 75 to 84 years was 8.3 per 1,000 residents in 2009.

Local Data Source: Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.







## Stroke

Cerebrovascular disease (CVD) includes a group of diseases that affect the arteries of the central nervous system, the most severe form of which is a stroke. A stroke is a disease of the blood vessels that occurs when blood and oxygen are unable to reach the brain because a blood vessel is blocked (ischemic) or bursts (hemorrhagic). Without blood giving the brain proper nutrients and oxygen, parts begin to die. On average, someone in the United States will have a stroke every 40 seconds.

Stroke Risk Factors

- Male gender men are more likely than women to have a stroke
- · Heredity or genetics
- Heart disease doubles the risk of stroke
- **Tobacco use** the risk of ischemic stroke in smokers is double that of nonsmokers
- Oral contraceptive use
- Stress
- Heavy alcohol consumption excessive drinking can lead to high blood pressure
- Obesity- doubles the risk of developing high blood pressure
- Physical inactivity
- **High blood pressure** the most important risk factor for stroke!

There are two major types of stroke. **Ischemic strokes** account for 87% of all strokes, <sup>9,10</sup> and occur when an artery that supplies blood and oxygen to the brain is blocked by a clot. They can also be caused by a narrowing of the arteries (stenosis). The most common condition that causes stenosis is

atherosclerosis, in which plaque builds up inside the artery causing thickening, hardening, and loss of elasticity. <sup>10</sup>

Hemorrhagic strokes occur when an artery that supplies blood to the brain bursts and bleeds into the brain, causing excess pressure. There are several causes of hemorrhagic stroke, including aneurysm, in which a weak artery wall expands and ruptures. Hemorrhage can also occur when artery walls become brittle and thin, leading to a bleed.<sup>10</sup>

A transient ischemic attack, often called a "warning stroke" or a "mini-stroke," occurs when a blockage occurs for a short period of time and then clears up. Transient ischemic strokes can predict more serious strokes in the future.

Like CHD, some risk factors for stroke cannot be modified, treated or controlled. The most important risk factor for stroke is high blood pressure. Thus, screening, treatment, and control of the condition is an important step in reducing the risk of stroke.<sup>4</sup>



#### Stroke Prevention

- Engage in physical activity Spend at least 2 hours and 30 minutes of doing moderate exercise each week
- Eat healthy foods Five servings of fruits and vegetables each day can reduce the risk of stroke by 30%
- Lower blood cholesterol Eat high fiber, low fat foods
- Lower blood pressure manage stress and eat healthy foods
- Moderate alcohol consumption



#### **Local Findings**

- On average, 1,329 residents die from stroke every year. -Death, 2000-2009
- San Diego County exceeded the HP2010 goal of reducing stroke deaths. -Death, 2009

#### **HP 2010 Objectives**

#### 12-7. Reduce stroke deaths.

**Target:** 50 deaths per 100,000 population (ageadjusted).

**National Baseline:** 62 deaths from stroke per 100,000 population occurred in 1999 (age-adjusted to the year 2000 standard population).

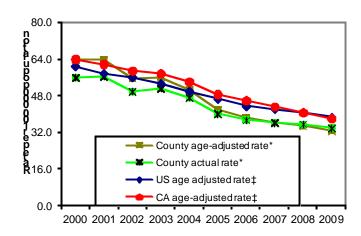
**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted stroke death rate was 32.6 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB,12/12/2011; SANDAG, Current Population Estimates, 10/2010.

**Detailed Local Data:** The County age-adjusted stroke death rate decreased steadily from 2000 through 2009, and has remained close to the age-adjusted rates for the U.S. and California (Figure 1). Regional level data is available by gender, race/ethnicity and age (Figure 2).

Figure 3. Stroke Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

<sup>‡</sup> Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 7/30/2012: http://wonder.cdc.gov/cmf-icd10.html.

# 12-8. Increase the proportion of adults who are aware of the early warning symptoms and signs of a stroke and the importance of accessing rapid emergency care by calling 911.

Target: 83 percent.

National Baseline: 78 percent of adults aged 20 years and older were aware of the early warning symptoms and signs of a stroke in 2001. (Current baseline data do not include the importance of accessing 911; the baseline will be updated with data regarding the importance of 911 when the data have been analyzed.)

National Data Source: National Health Interview Survey

(NHIS), CDC, NCHS.

Local Data: No local data available.



Figure 4. Stroke<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

	North Coastal		North Central Central		ntral	South		East		North Inland		County		County age- adjusted rate*	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	171	31.8	190	30.4	152	29.6	147	31.9	190	40.3	225	38.8	1,080	33.9	32.6
Gender															
Male	70	25.3	80	25.8	62	23.8	70	30.6	74	32.2	88	31.0	449	28.3	32.7
Female	101	38.8	110	35.0	90	35.5	77	33.2	116	48.1	137	46.4	631	39.5	32.2
Race/ Ethnicity															
White	135	42.7	158	40.9	62	45.3	60	53.0	152	50.8	171	51.3	742	46.8	30.2
Black	5	22.4	<5	§	29	43.7	5	24.6	9	35.4	<5	§	56	33.7	54.9
Hispanic	19	12.7	10	12.4	32	14.7	58	23.2	20	19.5	21	13.0	161	16.7	35.6
API‡	12	40.2	17	15.9	27	37.8	23	37.3	6	30.8	24	48.2	109	32.1	37.0
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	5	22.7	12	9.1	15.9
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	21	7.7	24	6.8	33	11.9	27	11.7	29	11.6	22	7.4	157	9.3	
65+	150	246.3	166	205.3	118	259.5	119	245.9	161	278.8	201	268.6	919	249.6	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Stroke Death refers to (underlying cause of death) ICD-10 codes I60-I69.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

## **B**lood Pressure

High blood pressure (HBP), or hypertension, is a serious condition that can lead to a variety of health problems and diseases, including CHD and stroke. It is estimated that 1 in 3 adults has HBP in the United States. Since there are typically no symptoms, nearly one-third of these people are unaware they have it. Often called the "silent killer," it is during this time that major damage can occur to the heart, blood vessels, kidneys, and other parts of the body.

Blood pressure refers to the force in the arteries when the heart is beating (systolic pressure) and when the heart is at rest (diastolic pressure). High blood pressure in adults is defined as systolic pressure greater than or equal to 140 mm Hg or diastolic pressure greater than or equal to 90 mm Hg.<sup>13</sup>

HBP can be prevented through a healthy lifestyle, including diet, exercise, and the management of stress. For people who already have HBP, lifestyle changes and medication can help to reduce it to a to an appropriate level.

#### **High Blood Pressure Risk Factors**

- Older age
- Genetic factors
- Birth control pills
- Certain medications such as asthma and cold relief products
- Obesity
- Physical inactivity
- Poor diet
- Excessive alcohol consumption
- Tobacco use

#### **HP 2010 Objectives**

## 12-9. Reduce the proportion of adults with high blood pressure.

Target: 14 percent (age-adjusted).

National Baseline: 26 percent of persons aged 20 years and older, excluding pregnant women, who had high blood pressure/hypertension in the 1988-94 survey cycle (age-adjusted to the year 2000 standard population).

National Data Source: National Health and Nutrition Examination (NHANES), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because Healthy People data excludes pregnant women. Data for San Diego County does not exclude pregnant women.

In San Diego County, according to the 2009 California Health Interview Survey, 27.4% of persons aged 20 years and older had high blood pressure.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 7/2012).



# 12-10. Increase the proportion of adults with high blood pressure whose blood pressure is under control.

Target: 68 percent (age-adjusted).

National Baseline: 25 percent of persons with high blood pressure/hypertension aged 18 years and older, excluding pregnant women, who have been told by a doctor or other health professional to take prescribed blood pressure medicine and are now taking it and whose mean systolic blood pressure is less than 140 mm Hg and mean diastolic blood pressure is less than 90 mm Hg for the 1988-94 survey cycle (age adjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination (NHANES), CDC, NCHS.

Local Data: No local data available.

12-11. Increase the proportion of adults with high blood pressure who are taking action (for example, losing weight, increasing physical activity, or reducing sodium intake) to help control their blood pressure.

Target: 98 percent (age-adjusted).

National Baseline: 84 percent of persons with high blood pressure/hypertension aged 18 years and older who were dieting, reducing salt or sodium intake, exercising, reducing alcohol consumption or taking high blood pressure medications in 1998 (ageadjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because data for San Diego County refers to persons who took medication to help control their blood pressure. Healthy people data refers to persons who took action (for example, lost weight, increased physical activity, or reduced sodium intake) to help control their blood pressure.

In San Diego County, according to the 2009 California Health Interview Survey, 71.0% of persons aged 18 years and older with high blood pressure took medication to help control their blood pressure.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 7/2012).

12-12. Increase proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high.

Target: 95 percent.

**National Baseline:** 90 percent of persons aged 18 years and older who had their blood pressure measured within the preceding 2 years and can state level in 1998.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.



### Cholesterol

Cholesterol is a waxy, fat-like substance found in the bloodstream and in all cells of the body. The body uses cholesterol to make cell membranes, hormones, vitamin D, and substances that help in digestion. The body makes all that it needs, but there is also cholesterol found in some food. Too much cholesterol in the blood, or high blood cholesterol, is a major risk factor for heart disease and stroke. Because there are no symptoms, most people are not aware that they have high cholesterol. 14,15

There are two kinds of cholesterol. Low-density lipoprotein (LDL) cholesterol is known as bad cholesterol, and leads to a buildup of plaque in the arteries. High-density lipoprotein (HDL) cholesterol is known as good cholesterol, and carries cholesterol from other parts of the body back to the liver, where it is then removed.<sup>15</sup>

Lowering cholesterol is important for everyone. All individuals ages 20 years and older should get their cholesterol checked at least once every 5 years. High cholesterol can be prevented or controlled by maintaining a healthy, low-fat diet, monitoring weight, and increasing activity levels. 15

#### **High Cholesterol Risk Factors**

- Older age
- Heredity or genetic factors
- Female gender
- Poor diet
  - High in saturated fat
  - High in trans fats
  - High in eggs, meat, or cheese
- Physical inactivity

#### **HP 2010 Objectives**

## 12-13. Reduce the mean total blood cholesterol levels among adults.

**Target:** 199 mean cholesterol level (age-adjusted).

**National Baseline:** 206 was the mean value of total cholesterol measurements for adults aged 20 years and older during the 1988-94 survey cycle (ageadjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination (NHANES), CDC, NCHS.

Local Data: No local data available.

## 12-14. Reduce the proportion of adults with high total blood cholesterol levels.

Target: 17 percent (age-adjusted).

**National Baseline:** 21 percent of persons aged 20 years and older had a total blood cholesterol level of 240 mg/dL or greater during the 1988-94 survey cycle (age adjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination (NHANES), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because data for San Diego County reflects an actual percent. Healthy People data reflects an age-adjusted percent.

In San Diego County, according to the 2005 California Health Interview Survey, 20.4% of persons aged 20 years and older had high total blood cholesterol levels.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2005 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

# 12-15. Increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years.

Target: 80 percent (age-adjusted).

**National Baseline:** 67 percent of persons aged 18 years and older had their cholesterol checked within 5 years during the 1988-94 survey cycle (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because data for San Diego County reflects an actual percent. Healthy People data reflects an ageadjusted percent.

In San Diego County, according to the 2005 California Health Interview Survey, 84.8% of persons aged 18 years and older had their blood cholesterol checked within the preceding 5 years.

Note: 2009 data not available.

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12-16. (Not Developed) Increase the proportion of persons with coronary heart disease who have their LDL-cholesterol level treated to a goal of less than 100 mg/dL.

**Proposed National Data Source:** National Health and Nutrition Examination (NHANES), CDC, NCHS.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because San Diego County data refer to persons who were told they had any kind of heart disease and high blood cholesterol (without mention of LDL cholesterol treatment goal being reached). Healthy People data refer to persons with coronary heart disease who had their LDL-cholesterol level treated to a goal of less than 100 mg/dL.

In San Diego County, according to the 2005 California Health Interview Survey, 26.9% of adults had a high blood cholesterol level, among those who ever were told they had any kind of heart disease and who had their cholesterol checked in the past 5 years.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2005 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).



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#### SAN DIEGO COUNTY

Chapter 13

# HIV

**Healthy People 2010 Goal:** Prevent HIV infection and its related illness and death.

An estimated 1.2 million people are living with HIV in the United States, and in 2009, approximately 48,100 new HIV infections occurred. Alarmingly, more than one out of every five individuals with HIV (21%) are unaware of their infection. Alarming with HIV (21%) are unaware of their infection.

Human immunodeficiency virus (HIV) is a disease that attacks the human immune system by destroying white blood cells, thus impairing the body's ability to fight disease. HIV becomes acquired immunodeficiency syndrome (AIDS) when either the number of white blood cells in the body falls below a certain threshold or when an individual with HIV develops certain cancers or infections.



AIDS is the last phase of HIV infection, and means that the HIV virus has weakened their immune system such that it is a challenge to fight infections. Eventually, those who have AIDS cannot fight off other pathogens and they die from damage caused by one or more diseases.



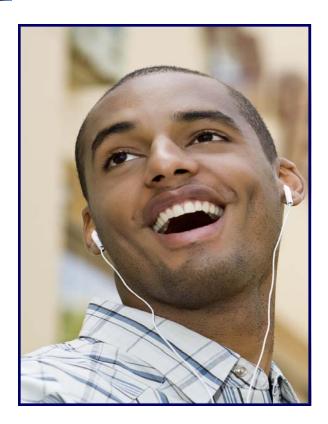
An AIDS-defining condition is any illness, such as certain cancers or infections, that when occurring in an HIV-infected person, leads to an AIDS diagnosis. These conditions include: yeast infection; invasive cervical cancer; mold, fungal and parasitic diseases; human herpesvirus 5; HIV-related encephalopathy; severe Herpes Simplex; Darling's disease; human intestinal disease; Kaposi's sarcoma; lymphoma; mycobacterium avium complex; pneumonia caused by yeast-like fungus; recurrent pneumonia; Progressive multifocal leukoencephalopathy; recurrent Salmonella septicemia; toxoplasmosis of the brain; tuberculosis; and wasting syndrome.

HIV is found in the blood, semen, or vaginal fluid of an infected person, and is spread through the exchange of these fluids. HIV can be transmitted by having anal, vaginal, or oral sex with an infected person, sharing needles and syringes with an infected person, or being exposed to HIV before or during birth or through breast feeding.<sup>4</sup>

Declines in new cases of HIV were noted in the late 1990's due to education and increased awareness about the risk factors for HIV transmission. Infection rates are now relatively stable. However, the number of people living with the infection is continuing to increase because earlier detection and improved treatments have resulted in a longer life expectancy for people with HIV.<sup>4</sup> The age-adjusted death rate for HIV disease in 2009 was 3.0 per 100,000 individuals in the United States.<sup>5</sup>

#### **HIV Risk Factors**

- Male gender
- Age under 40 years
- Black and Hispanic race/ethnicity
- Risky sexual behavior, such as unprotected sex
- Intravenous drug use/needle sharing
- Having a sexually transmitted disease
- Perinatal infection



HIV disproportionately affects some populations more than others. Men who have sex with men (MSM), black/African-Americans and Hispanics/ Latinos, are most affected by HIV in the United States. In 2009, 57% of the new HIV infections were diagnosed among MSM. Blacks accounted for 44% of the new HIV infections in the United States and Hispanics accounted for 20% of new infections in 2009.<sup>1</sup>

Many people are still being diagnosed with HIV later in the course of their infection in the United States. In 2008, 33% of the newly diagnosed HIV infections received an AIDS diagnosis within 12 months. Efforts are still needed to promote not only prevention but to normalize routine HIV testing.

#### **HIV Prevention**

#### HIV can be prevented through:

- Safe sex practice, including condom use with a lubricant
- Drug abuse treatment, to stop needle sharing and risky sexual behaviors
- STD treatment, to lower one's ability to give or receive HIV
- HIV testing, to know personal HIV status

#### **Local Findings**

- The rate of new AIDS cases in San Diego County was significantly higher than the HP2010 objective. ~HARS, 2009
- The age-adjusted death rate from HIVinfection in San Diego County was 2.1 per 100,000 persons. ~Death, 2009
- In San Diego County, 91.1% of new reported HIV-infected persons survived more than 3 years after a diagnosis of AIDS. The HP2010 goal was 88%.

~HARS, 2009

#### **HP 2010 Objectives**

### 13-1. Reduce AIDS among adolescents and adults.

**Target:** 1.0 new case per 100,000 persons.

**National Baseline:** 17.8 cases of AIDS per 100,000 persons aged 13 years and older in 1998. Data are estimated; adjusted for delays in reporting.

**National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

**Local Data:** In San Diego County, according to the HIV/AIDS Epidemiology Unit, the rate of new AIDS cases among persons aged 13 years and older was 11.4 per 100,000 in 2009.

Local Data Source: County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, HIV/AIDS Reporting System; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 12/21/2011.

## 13-2. Reduce the number of new AIDS cases among adolescent and adult men who have sex with men.

Target: 12,274 new cases.

**National Baseline:** 16,365 new cases of AIDS in 1998 among males aged 13 years and older. Data are estimated; risk is redistributed; adjusted for delays in reporting.

**National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

**Local Data:** San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because Healthy People 2010 reports the number of cases and compares one single year, 1998. San Diego County reports a percentage that is based on a comparison between the years 2000-2004 and 2005-2009.

In San Diego County, according to the HIV/AIDS Epidemiology Unit, the number of new AIDS cases among men aged 13 years and older who have sex with men increased by 7.0% between 2000-2004 and 2005-2009.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, Enhanced HIV/AIDS Reporting System, 2000-2009.

### 13-3. Reduce the number of new AIDS cases among females and males who inject drugs.

Target: 8,087 cases.

**National Baseline:** 10,782 new cases of AIDS among injection drug users aged 13 years and older were reported in 1998.

**National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

Local Data: San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because Healthy People 2010 reports the number of cases and compares one single year, 1998. San Diego County reports a percentage that is based on a comparison between the years 2000-2004 and 2005-2009.

In San Diego County, according to the HIV/AIDS Epidemiology Unit, the number of new AIDS cases among females and males aged 13 years and older who inject drugs, decreased by 42.1% between 2000-2004 and 2005-2009.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, Enhanced HIV/AIDS Reporting System, 2000-2009.

# 13-4. Reduce the number of new AIDS cases among adolescent and adult men who have sex with men and inject drugs.

Target: 1,889 cases.

**National Baseline:** 2,518 new cases of AIDS among males aged 13 years and older in 1998. Data are point estimates; risk redistributed; adjusted for delays in reporting.

**National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

**Local Data:** San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because Healthy People 2010 reports the number of cases and compares one single year, 1998. San Diego County reports a percentage that is based on a comparison between the years 2000-2004 and 2005-2009.

In San Diego County, according to the HIV/AIDS Epidemiology Unit, the number of new AIDS cases among men aged 13 years and older who have sex with men and inject drugs, decreased by 3.6% between 2000-2004 and 2005-2009.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, Enhanced HIV/AIDS Reporting System, 2000-2009.

## 13-5. (Not Developed) Reduce the number of new cases of HIV/AIDS diagnosed among adolescents and adults.

**Potential National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

### 13-6. Increase the proportion of sexually active persons who use condoms.

Objective	Increase the proportion of sexually active unmarried persons aged 18-44 years	Baseline (year)	2010 Target
	who report using a condom at last sexual intercourse.	Percent	
13-6a.	Females	23 (1995)	50
13-6b.	Males	42 (2002)	54

#### Target and National Baseline:

National Data Source: National Survey of Family

Growth (NSFG), CDC, NCHS.

**Local Data:** No local data available.

### 13-7. Objective deleted by Federal Government at midcourse review.

# 13-8. Increase the proportion of substance abuse treatment facilities that offer HIV/AIDS education, counseling, and support.

Target: 70 percent.

**National Baseline:** 58 percent of substance abuse treatment facilities offered HIV/AIDS education, counseling, and support in 1997.

**National Data Source:** Data from the original data source (the UFDS) were collected periodically. As of 2000, the data source was changed to the Survey of Substance Abuse Treatment Services (N-SSATS) and data are available annually.

Local Data: No local data available.

### 13-9. Objective deleted by Federal Government at midcourse review.

### 13-10. Objective deleted by the Federal Government at midcourse review.

# 13-11. Increase the proportion of adults with tuberculosis (TB) who have been tested for HIV.

Target: 89 percent.

**National Baseline:** 61 percent of adults aged 25 to 44 years with TB were tested for HIV in 1998.

**National Data Source:** National TB Surveillance System, CDC, NCHHSTP.

**Local Data:** In San Diego County, 96% of adults aged 25 to 44 with TB in 2009 were tested for HIV at the time of TB diagnosis.

Local Data Source: County of San Diego, HHSA, Tuberculosis Control Program, County TB Registry; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 12/21/2011.

### 13-12. Objective deleted by the Federal government at midcourse review.

#### 13-13. Increase the proportion of HIV-infected adolescents and adults who receive testing, treatment, and prophylaxis consistent with current Public Health Service treatment quidelines.

#### **Target and National Baseline:**

Objective	Increase in HIV-Infected Persons Aged 13 Years and Older Receiving Testing, Treatment, and Prophylaxis Consistent With Current Public Health Service Guidelines	1997 Baseline	2010 Target
		Percent	
	Testing		
13-13a.	Viral load testing	Not Developed	
13-13b.	Tuberculin skin testing (TST)	Not Developed	
	Treatment		
13-13с.	Any antiretroviral therapy	85	95
13-13d.	Highly active antiretroviral therapy (HAART)	61	95
	Prophylaxis		
13-13e.	Pneumocystis carinii pneu- monia (PCP) prophylaxis	81	95
13-13f.	Mycobacterium avium complex (MAC) prophylaxis	53	95

Note: Data from 11 cities and 9 States. 13-13a,b are developmental.

**National Data Source:** Adult Spectrum of Disease (ASD) Surveillance Project, CDC, NCHSTP.

Local Data: No local data available.

#### 13-14. Reduce deaths from HIV infection.

**Target:** 0.7 deaths per 100,000 persons (ageadjusted).

**National Baseline:** 5.3 deaths from HIV infection per 100,000 persons in 1999 (age adjusted to the year 2000 population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted death rate for HIV infection was 2.1 per 100,000 persons in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, HIV/AIDS Epidemiology Unit; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2010.

# 13-15. (Developmental) Increase the proportion of new HIV infected diagnosed before the progression to AIDS.

**Potential National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

**Local Data:** In San Diego County, according to the HIV/AIDS Epidemiology Unit, 78.0% of new reported HIV infected persons were diagnosed with the disease before it progressed to AIDS in 2009.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, Enhanced HIV/AIDS Reporting System, 2000-2009.

#### 13-16. Increase the proportion of HIVinfected persons surviving more than 3 years after a diagnosis of AIDS.

Target: 88 percent.

**National Baseline:** 82 percent of persons diagnosed with AIDS four years prior to 1998 were surviving (36 months after AIDS diagnosis).

**National Data Source:** HIV/AIDS Surveillance System, CDC, NCHHSTP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010. This is because the Healthy People 2010 data reflects a 3-year survival. San Diego County data reflects a 4-year survival.

In San Diego County, according to the HIV/AIDS Epidemiology Unit, 91.1% of HIV-infected persons diagnosed in 2006, survived more than 3 years after a diagnosis of AIDS.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, Enhanced HIV/AIDS Reporting System, 2000-2009.

# 13-17. Reduce the number of new cases of perinatally acquired HIV/AIDS diagnosed each year and perinatally acquired AIDS.

Objective	Reduce the number of new cases diagnosed	2002 Baseline	2010 Target
	each year	Percent	
13-17a.	Perinatally acquired HIV/ AIDS	Not Developed	
13-17b.	Perinatally acquired AIDS	103	<i>75</i>

#### **Target and National Baseline:**

**National Data Source:** HIV/AIDS Surveillance System, CDC, NCHHSTP.

**Local Data:** In San Diego County, there were 5 cases of perinatally acquired HIV/AIDS.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/AIDS Epidemiology Unit, Enhanced HIV/AIDS Reporting System, 2000-2009.

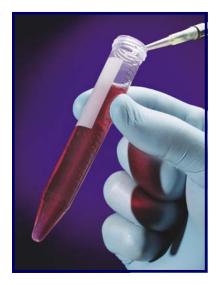
13-18. (Not Developed) Reduce the number of new cases of HIV/AIDS diagnosed in adolescent and young adult females aged 13 to 24 years that are associated with heterosexual contact.

**Potential National Data Source:** HIV/AIDS Surveillance System, CDC, NCHHSTP.



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#### SAN DIEGO COUNTY

Chapter 14

### Immunization and Infecti<mark>ous</mark> Diseases

Healthy People 2010 Goal: Prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases.

Despite advances in medical research and treatment, infectious diseases remain among the leading causes of death worldwide,<sup>1</sup> and are a major cause of illness, disability, and death even in the United States.<sup>2</sup> Considered together, influenza and pneumonia constituted the eighth leading cause of death in the United States in 2009.<sup>3</sup>

Infectious diseases are caused by pathogenic microorganisms, including bacteria, viruses, parasites or fungi. <sup>4</sup> These diseases can be spread from one person to another, either directly or indirectly. Infectious diseases of animals that can be transmitted to humans are called zoonotic diseases. <sup>4</sup>

Infectious diseases remain among the leading causes of death for three reasons. First, new infectious diseases continue to emerge. These include outbreaks of previously unknown diseases. Second, old infectious diseases re-emerge. Re-emerging diseases are those that have reappeared after a significant decline in incidence. Finally, intractable infectious diseases persist. In addition, antimicrobial resistance is rapidly evolving in hospital—and community-acquired infections.

Vaccines can prevent the illness and death associated with many infectious diseases. Vaccines are biological substances that produce an immune response identical to the response produced by the natural infection. Vaccines not only protect the individual, they protect

those in the population who cannot be vaccinated by providing group immunity. In other words, when unvaccinated persons live within a community where vaccination rates are high, they are offered protection from exposure to the disease.<sup>2</sup>

#### **High Risk Populations**

- Black and Hispanic race/ethnicity
- Children living in poverty, especially in large urban areas
- Persons aged 65 years and older
- Persons with impaired host defenses
- Pregnant women and newborns
- Travelers, immigrants, and refugees



### Diseases Preventable Through Universal Vaccination

Universal vaccination together with community-based prevention programs can help to protect the population from a number of infectious diseases. Vaccinations used routinely in childhood for the prevention of measles, mumps, rubella, varicella, diphtheria, tetanus, pertussis, polio, hepatitis B, and invasive Hib disease have reduced reported cases of these diseases to record low levels.<sup>2</sup>

Other infectious diseases, such as Hepatitis B virus (HBV), bacterial meningitis, and invasive pneumococcal infections can be prevented by universal vaccination of children as well.<sup>2</sup> Routine vaccination of children will produce a highly immune population over time and eventually eliminate these diseases.



#### **HP2010 Objectives**

### 14-1. Reduce or eliminate indigenous cases of vaccine-preventable diseases.

#### **Target and National Baseline:**

Objective	Reduction in number of cases for specified dis-	1998 Baseline	2010 Target
	ease and age group.	Number	of Cases
14-1a.	Congenital Rubella Syn- drome (children under age 1 year)	7	0
14-1b.	Diphtheria (persons un- der age 35 years)	1	0
14-1c.	Haemophilus influenzae type b <sup>*</sup> (children under age 5 years)	163	0
14-1d.	Hepatitis B (persons aged 2 to 18 years)	708 (1997) <sup>†</sup>	7
14-1e.	Measles (persons of all ages)	74	0
14-1f.	Mumps (persons of all ages)	666	0
14-1g.	Pertussis (children under age 7 years)	3,417	2,000
14-1h.	Polio (wild-type virus) (persons of all ages)	0	0
14-1i.	Rubella (persons of all ages)	364	0
14-1j.	Tetanus (persons under age 35 years)	14	0
14-1k.	Varicella (chicken pox) (persons under age 18 years)	2,229,999 (1999) <sup>‡</sup>	223,000

<sup>\*</sup>Includes cases with type b and unknown serotype.

<sup>&</sup>lt;sup>†</sup>Estimated hepatitis B cases for 1997.

<sup>&</sup>lt;sup>‡</sup>Data based on average from 1990–94 for persons of all ages.

National Data Sources: National Congenital Syndrome Registry, CDC, NCIRD; National Notifiable Disease Surveillance System (NNDSS), CDC, NCPHI; Active Bacterial Core Surveillance (ABCs), CDC, NCIRD, Emerging Infections Program Network; National Health Interview Survey (NHIS), CDC, NCHS.

#### **Local Data:**

**14-1a:** In San Diego County, there were no cases of Congenital Rubella Syndrome in 2009.

**14-1b:** In San Diego County, there were no cases of Diptheria in 2009.

**14-1c:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflects persons aged 5 years and younger; San Diego County data reflect all ages.

In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Haemophilus influenzae type b cases among persons of all ages was 0 in 2009.

**14-1d:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflects persons aged 2 to 18 years; San Diego County data reflect all ages.

In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Hepatitis B cases among persons of all ages was 2 in 2009.

**14-1e:** In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Measles cases among persons of all ages was 1 in 2009.

**14-1f:** In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Mumps cases among persons of all ages was 1 in 2009.

**14-1g:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflects persons aged 6 years and younger; San Diego County data reflect all ages.

In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Pertussis cases among persons of all ages was 144 in 2009.

**14-1h:** In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Polio (wild-type virus) cases among persons of all ages was 0 in 2009.

**14-1i:** In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Rubella cases among persons of all ages was 0 in 2009.

**14-1j:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflects persons aged 34 years and younger; San Diego County data reflect all ages.

In San Diego County, according to the Epidemiology and Immunization Branch, the number of new Tetanus cases among persons of all ages was 0 in 2009.

**14-1k:** No local data available.

**Local Data Source (14-1a,k):** Vaccine preventable disease cases reported in San Diego County, County of San Diego, Health & Human Services Agency, Epidemiology and Immunization Branch.

# 14-2. Reduce chronic hepatitis B virus infections in infants and young children (perinatal infections).

Target: 400 infections.

**National Baseline:** 1,682 chronic hepatitis B virus infections in children under age 2 years were reported in 1995.

**National Data Sources:** Perinatal Hepatitis B Prevention Program, CDC, NCHHSTP; National Vital Statistics System-Natality (NVSS-N), CDC, NCHS; State Perinatal Hepatitis B

Prevention Programs; State Vital Statistics Systems.

#### 14-3. Reduce hepatitis B.

#### **Target and National Baseline:**

Objective	Reduction in Hepatitis B	1997 Baseline	2010 Target
	A dulka	Rate per	100,000
	Adults	Popul	ation
14-3a.	19 to 24 years	18.5	1.8
14-3b.	25 to 39 years	20.5	5.2
14-3c.	40 years and older	14.7	3.7
	High-risk groups	Number of Cases	
14-3d.	Injection drug users	7,135	1.784
14-3e.	Heterosexually active persons	15,021	1,223
14-3f.	Men who have sex with men	5,209	1,302
14-3g.	Occupationally exposed workers	239	60

**National Data Sources:** National Notifiable Disease Surveillance System (NNDSS), CDC, NCPHI.

Local Data: No local data available

### 14-4. Reduce bacterial meningitis in young children.

**Target:** 8.6 new cases per 100,000 children aged 1 through 23 months.

**National Baseline:** 13.0 new cases of bacterial meningitis per 100,000 children aged 1 through 23 months were reported in 1998.

**National Data Source:** Active Bacterial Core Surveillance (ABCs), CDC, NCIRD, Emerging Infections Program Network.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective, which reflects persons aged 1—23 months, while San Diego County data reflect all ages.

In San Diego County, the rate of new Bacterial Meningitis cases among persons of all ages was 0.6 per 100,000 in 2009.

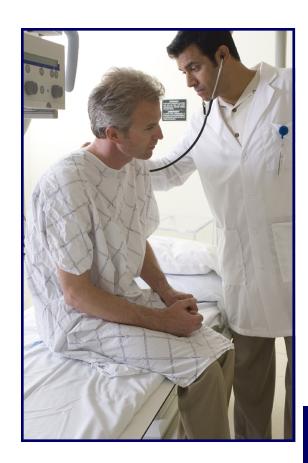
**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB, 2011.

#### 14-5. Reduce invasive pneumococcal infections.

#### **Target and National Baseline:**

Ohiective	Reduction in Invasive Pneumococcal Infections	1997 Baseline	2010 Target
	,	Rate per	100,000
	New invasive infections		
14-5a.	Children under age 5 years	77	46
14-5b.	Adults aged 65 years and older	62	42
	Invasive penicillin-resistant pneumococcal infections		
14-5c.	Children under age 5 years	16	6
14-5d.	Adults aged 65 years and older	8	7

**National Data Sources:** Active Bacterial Core Surveillance (ABCs), CDC, NCIRD, Emerging Infections Program Network.



### Diseases Preventable Through Targeted Vaccination

Certain groups are at higher risk for vaccinepreventable diseases such as Hepatitis A, Meningococcal disease, and Lyme disease. While routine immunization for these diseases is the method most likely to decrease the overall rates in a community, it will take time to measure the impact of such a program. Until then, target vaccination of high risk groups should be conducted.<sup>2</sup>

For Hepatitis A virus, high risk groups include illicit drug users, men who have sex with men, persons traveling to Hepatitis A-endemic counties, persons with occupational risk of infection, and persons with chronic liver disease. For meningococcal disease, high risk groups include people with asplenia, laboratory personnel exposed to the disease, and travelers to regions where meningococcal disease is hyperendemic or epidemic.<sup>2</sup>

#### **HP 2010 Objectives**

#### 14-6. Reduce hepatitis A.

**Target:** 4.3 new cases per 100,000 population.

**National Baseline:** 11.2 new cases of hepatitis A per 100,000 population were reported in 1997.

**National Data Source:** National Notifiable Disease Surveillance System (NNDSS), CDC, NCPHI.

**Local Data:** In San Diego County, according to the Community Epidemiology Branch, the number of new Hepatitis A cases among persons of all ages was 0.8 per 100,000 in 2009.

**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB, 2011.

#### 14-7. Reduce meningococcal disease.

Target: 1.0 new cases per 100,000 population.

**National Baseline:** 1.3 new cases of meningococcal disease per 100,000 population were reported in 1997.

**National Data Sources:** Active Bacterial Core Surveillance (ABCs), CDC, NCIRD, Emerging Infections Program Network; National Notifiable Diseases Surveillance System (NNDSS), CDC, NCPHI.

Local Data: No local data available.

#### 14-8. Reduce Lyme disease.

**Target:** 9.7 new cases per 100,000 population in endemic States.

**National Baseline:** 17.4 new cases of Lyme disease per 100,000 population were reported in 1992–96.

**National Data Source:** National Notifiable Disease Surveillance System (NNDSS), CDC, NCPHI.



# Infectious Diseases and Emerging Antimicrobial Resistance

A number of infectious diseases are not preventable through vaccination. A few of them include Hepatitis C, Tuberculosis, group B streptococcal disease, peptic ulcers, ear infections, the common cold, and hospital-acquired infections. In order to prevent transmission, timely and appropriate identification of the disease and completion of the prescribed therapy is necessary.<sup>2</sup>

Some infectious diseases, such as the common cold, do not require antimicrobial therapy. Inappropriate use of antibiotics for a cold is one reason for the increase in antimicrobial resistance. Antimicrobial resistance occurs when bacteria changes in some way to reduce the effectiveness of drugs, chemicals, or other medications designed to cure or prevent infection.<sup>5</sup> The overuse of these medications is causing an increase in antimicrobial resistance.

Another important concern is the high rate of illness and death due to hospital-acquired infections in the United States.<sup>2</sup> A hospital-acquired infection, as defined by the World Health Organization, is an infection that is "acquired in a hospital by a patient who was admitted for a reason other than that infection," and was not present at the time of admission.<sup>6</sup> The rate of hospital-acquired infections has increased recently in large part because hospital patients are, on average, older, sicker and more susceptible to infection. Hospital-acquired infections that are caused by antimicrobial-resistant pathogens can be virtually untreatable.<sup>2</sup>



#### **HP 2010 Objectives**

#### 14-9. Reduce hepatitis C.

**Target:** 1.0 new case per 100,000 population.

**National Baseline:** 2.5 new cases of hepatitis C per 100,000 population in selected counties were reported in 1997.

National Data Source: Sentinel Counties Study of

Viral Hepatitis, CDC, NCHHSTP.

Local Data: No local data available

14-10. (Not Developed) Increase the number of States and the District of Columbia identifying persons with chronic hepatitis C infection.

**Proposed National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

#### 14-11. Reduce tuberculosis.

Target: 1.0 new case per 100,000 population.

**National Baseline:** 6.8 new cases of tuberculosis per 100,000 population were reported in 1998.

**National Data Source:** National TB Surveillance System, CDC, NCHHSTP.

Local Data: In San Diego County, according to the TB Control branch, the rate of new tuberculosis cases reported was 7.0 per 100,000 persons in 2009. The County incidence rate has declined steadily from 11.6 per 100,000 in 2001, but remains higher than the national rate of 4.2 per 100,000 (provisional US data).

**Local Data Source:** County of San Diego, Health & Human Services Agency, Tuberculosis Control Program, County TB Registry.

# 14-12. Increase the proportion of all tuberculosis patients who complete curative therapy within 12 months.

Target: 90 percent of patients.

**National Baseline:** 74 percent of those tuberculosis patients reported in 1996 and started on therapy completed therapy within 12 months.

**National Data Source:** National TB Surveillance System, CDC, NCHHSTP.

**Local Data:** In San Diego County, 86% of tuberculosis patients reported in 2009 and started on therapy completed therapy within 12 months. Overall, 95% of patients completed therapy.

**Local Data Source:** County of San Diego, Health & Human Services Agency, Tuberculosis Control Program, County TB Registry.

# 14-13. Increase the proportion of persons with latent tuberculosis infection who complete a course of treatment.

Target: 57 percent.

**National Baseline:** 45 percent of persons found to have LTBI (during contact investigations of AFB sputum smear-positive TB cases) had completed treatment in 2000.

**National Data Source:** Aggregate Reports for Tuberculosis Program Evaluation, CDC, NCHHSTP.

**Local Data:** In 2009, 52% of contacts in San Diego who started treatment for latent TB infection completed treatment.

**Local Data Source:** County of San Diego, Health & Human Services Agency, Tuberculosis Control Program, County TB Registry.

### 14-14. Reduce the average time for a laboratory to confirm and report tuberculosis cases.

Target: 2 days for 75 percent of cases.

**National Baseline:** 21 days were needed for a laboratory to confirm and report 75 percent of TB cases in 1996.

**National Data Source:** Survey of State Public Health Laboratories, CDC, NCHHSTP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective, which reflects number of days for the fastest 75% of case identifications, while San Diego County data reflect all the percent of cases confirmed with in 21 days.

In San Diego County, 74% of cases reported were identified within 21 days in 2009.

**Local Data Source:** County of San Diego, Health & Human Services Agency, Public Health Services, Public Health Laboratory, STARLIMS database.

### 14-15. Objective deleted by the Federal government at midcourse review.

### 14-16. Reduce invasive early onset group B streptococcal disease.

**Target:** 0.5 new cases per 1,000 live births.

**National Baseline:** 1.0 new case of invasive early onset group B streptococcal disease per 1,000 live births was reported in 1996.

National Data Source: Active Bacterial Core Surveillance (ABCs), CDC, NCIRD, Emerging Infections Program Network,; National Vital Statistics System-Natality (NVSS-N, CDC, NCHS).

### 14-17. Reduce hospitalizations caused by peptic ulcer disease in the United States.

**Target:** 46 hospitalizations per 100,000 population (age-adjusted).

**National Baseline:** 71 hospitalizations per 100,000 population occurred in 1998 (age-adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data are age-adjusted. San Diego County data are not age-adjusted.

In San Diego County, the number of hospitalizations due to peptic ulcer disease among persons of all ages was 36.6 per 100,000 in 2009.

**Local Data Source:** Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

### 14-18. Reduce the number of courses of antibiotics for ear infections for young children.

**Target**: 56 antibiotic courses per 100 children under age 5 years.

**National Baseline:** 69 antibiotic courses for otitis media per 100 children under age 5 years were prescribed during 1996–97 (2-year average).

**National Data Sources:** National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Local Data: No local data available

# 14-19. Reduce the number of courses of antibiotics prescribed for the sole diagnosis of the common cold.

Target: 1,268 antibiotic courses per 100,000 population.

**National Baseline:** 2,535 antibiotic courses per 100,000 population were prescribed for the sole diagnosis of the common cold, 1996–97.

National Data Sources: National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Local Data: No local data available

### 14-20. Reduce hospital-acquired infections in intensive care unit patients.

#### **Target and National Baseline:**

	Reduction in Hospital-	Baseline (year)	2010 Target
Objective	Acquired Infections in Intensive Care Units	Infections Days	
	Intensive care unit patient	S	
14-20a.	Catheter-associated uri- nary tract infection	5.5 (1995-98)	5.0
14-20b.	Central line-associated bloodstream infection	5.5 (1995-98)	5.0
14-20c.	Ventilator-associated pneumonia	5.9 (2002-03)	5.3
	Infants weighing 1,000 grams or less at birth in intensive care		
14-20d.	Central line-associated bloodstream infection	12.2 ( 1995-98)	11.0
14-20e.	Ventilator-associated pneumonia	3.0 (2002-03)	2.7

**National Data Source:** National Nosocomial Infections Surveillance System (NNIS), CDC, NCPDCID.

### 14-21. Reduce vancomycin use among intensive care unit patients.

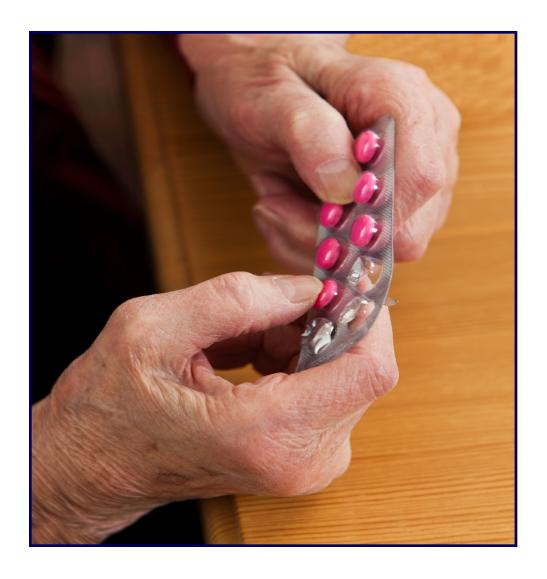
Target: 85.1 daily doses per 1,000 patient days.

**National Baseline:** 106.4 daily doses of antimicrobials per 1,000 patient days were used among inten-

sive care unit patients in 1996-03.

National Data Source: National Nosocomial Infections

Surveillance System (NNIS), CDC, NCPDCID.



# Vaccination Coverage and Strategies

In general, vaccination coverage levels of 90 percent are sufficient to prevent the spread of vaccine-preventable diseases. Maintaining high coverage levels during childhood is the best way to prevent the spread of disease among children and to control vaccine-preventable diseases in adults. For any new vaccine that is universally recommended, 90 percent coverage within five years of the recommendation should be targeted.<sup>2</sup>

Nationally, coverage levels often exceed 90 percent. However, variation within smaller communities may lead to populations with significantly lower levels of protection. This leaves them vulnerable to outbreaks of vaccine-preventable diseases. Thus, maintaining appropriate coverage levels at the local level will help to reduce the risk of future outbreaks.<sup>2</sup>

In order to appropriately monitor vaccine coverage, fully operational population-based registries should keep a full vaccination history for all children from birth and notify those who are due for vaccinations. Participation in immunization registries is expected to increase.<sup>2</sup>



#### **HP 2010 Objectives**

14-22. Achieve and maintain effective vaccination coverage levels for universally recommended vaccines among young children.

#### **Target and National Baseline:**

Objective	Increase the percent of young children who receive	1999 Baseline	2010 Target
	the specified vaccinations	Perd	cent
	Children aged 19-35 mont	hs	
14-22a.	4 doses diphtheria-tetanus- acellular pertussis (DTaP) vaccine	84	90
14-22b.	3 doses Haemophilus influenzae type b (Hib) vaccine	93	90
14-22c.	3 doses hepatitis B (hep B) vaccine	87	90
14-22d.	1 dose measles-mumps- rubella (MMR) vaccine	92	90
14-22e.	3 doses polio vaccine	91	90
14-22f.	1 dose varicella vaccine	43	90
14-22g.	4 doses pneumococcal conjugate vaccine	20 (2002)	90
	Children aged 6-23 months		
14-22h.	1 dose influenza vaccine	Not Developed	

**National Data Source:** National Immunization Survey (NIS), CDC, NCIRD and NCHS.

#### **Local Data:**

**14-22a:** In San Diego County, according to a random digit dial survey, 88.3% of children ages 19-35 months received 4 doses of the DTaP vaccine.

**14-22b:** In San Diego County, according to a random digit dial survey, 89.3% of children

ages 19-35 months received 3 doses of the Hib vaccine.

**14-22c:** In San Diego County, according to a random digit dial survey, 91.6% of children ages 19-35 months received 3 doses of the Hep B vaccine.

**14-22d:** In San Diego County, according to a random digit dial survey, 94.7% of children ages 19-35 months received 1 dose of the MMR vaccine.

**14-22e:** In San Diego County, according to a random digit dial survey, 94.7% of children ages 19-35 months received 3 doses of the polio vaccine.

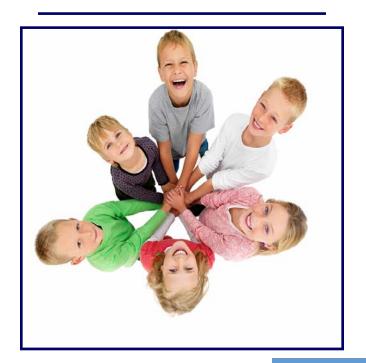
**14-22f:** In San Diego County, according to a random digit dial survey, 97.3% of children ages 19-35 months received 1 dose of the varicella vaccine.

**14-22g:** In San Diego County, according to a random digit dial survey, 86.6% of children ages 19-35 months received 4 doses of the pneumococcal vaccine.

**14-22h:** In San Diego County, according to a random digit dial survey, 50%% of children ages 6-23 months received 1 dose of the influenza vaccine in 2008.

Note: 2009 data not available.

**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB, 2008 and 2009 Random Digit Dial Survey.



# 14-23. Maintain vaccination coverage levels for children in licensed day care facilities and children in kindergarten.

#### **Target and National Baseline:**

rarget ar	na National Baseline:		
Objective	Maintain or reduce the percent of children with	Baseline (Year)*	2010 Target
	who have received the specified vaccinations.	Perd	cent
	Children in day care		
	Diphtheria-tetanus-acellular	96	
14-23a.	pertussis (DTaP) vaccine	(1997-98)	95
14-23b.	Measles/mumps/rubella	89	95
14 250.	vaccines	(1997-98)	33
14-23c.	Polio vaccine	96 (1997-98)	95
14-23d.	Hepatitis B vaccine	93 (2003-04)	95
14-23e.	Varicella vaccine	87 (2003-04)	95
	Children in kindergarten	, ,	
	Diphtheria-tetanus-	95	
14-23f.	acellular pertussis (DTaP)	(2002-03	95
	vaccine	school yr)	
	Measles/mumps/rubella (MMR) vaccine	96	
14-23g.		(2002-03	95
	(iviiviit) vaccine	school yr)	
		96	
14-23h.	Polio vaccine	(2002-03	95
		school yr)	
		96	
14-23i.	Hepatitis B vaccine	(2002-03	95
		school yr)	
4.4.22:	Maniaalla waxaina	93	95
14-23j.	Varicella vaccine	(2002-03 school yr)	95
	Children in day care	SCHOOL YI)	
		53	
14-23k.	Pneumococcal conjugate	(2003-04	95
_	vaccine	school yr)	
	Hoomonbilus influence	94	
14-23l.	Haemophilus influenzae	(2003-04	90
	type b vaccine	school yr)	

<sup>\*</sup>Weighted means.

National Data Source: Annual Immunization Assessment Reports, CDC, NCIRD; Day Care and Head Start Assessment Report. CDC, NCIRD; School Immunization Assessment Survey, CDC, NCIRD; Immunization Program Annual Reports, CDC, NIP.

#### Local Data:

**14-23a:** In San Diego County, 96.0% of children in day care received the DTaP vaccine in 2009.

**14-23b:** In San Diego County, 97.0% of children in day care received the MMR vaccine in 2009.

**14-23c:** In San Diego County, 96.0% of children in day care received the polio vaccine in 2009.

**14-23d:** In San Diego County, 96.0% of children in day care received the Hep B vaccine in 2009.

**14-23e:** In San Diego County, 97.0% of children in day care received the Varicella vaccine in 2009.

**14-23f:** In San Diego County, 93.0% of children in kindergarten received the DtaP vaccine in 2009.

**14-23g:** In San Diego County, 94.0% of children in kindergarten received the MMR vaccine in 2009.

**14-23h:** In San Diego County, 92.9% of children in kindergarten received the Polio vaccine in 2009.

**14-23i:** In San Diego County, 95.9% of children in kindergarten the Hep B vaccine in 2009.

**14-23j:** In San Diego County, 96.3% of children in kindergarten received the Varicella vaccine in 2009.

**14-23k:** No local data available.

**14-23I:** In San Diego County, 98.0% of children in licensed day care facilities received the Haemophilus influenzae type b vaccine in 2009.

**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB, 2009 Childcare and Kindergarten Assessments.

14-24. Increase the proportion of young children and adolescents who receive all vaccines that have been recommended for universal administration for at least 5 years.

#### **Target and National Baseline:**

Ohioctiva	Increase percent of chil- dren of specified age who	1998 Baseline	2010 Target
	have received the recom- ' mended vaccines	Perd	cent
11 <i>1</i> 1-2/1a	Children aged 19 to 35 months	73	80
14-24b.	Adolescents aged 13 to 15 years	Not Dev	eloped/

National Data Source: National Immunization Survey (NIS), CDC, NCIRD and NCHS; National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available

14-25. Increase the proportion of providers who have had vaccination coverage levels among children in their practice population measured within the past 2 years.

#### **Target and National Baseline:**

Objective	Increase percent of Provideers that routinely provide immunizations who participate in provider assessment in the past 2 years	1999 Baseline	2010 Target
		Percent	
14-25a.	Public health providers	40	55
14-25b.	Private providers	11	55

**National Data Source:** Annual Immunization Assessment Reports, CDC, NCIRD.

#### **Local Data:**

**14-25a:** In San Diego County, 100% of public health providers measured vaccination levels among children in their practice population during the previous two years, in 2009.

**14-25b:** In San Diego County, 23.6% of private providers measured vaccination levels among children in their practice population during the previous two years, in 2007.

Note: 2009 data not available.

**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB.

# 14-26. Increase the proportion of children who participate in fully operational population-based immunization registries.

Target: 62 percent of children under age 6 years.

**National Baseline:** 21 percent of children under age 6 years participated in an immunization registry in 1999.

**National Data Source:** Immunization Information System Annual Reports.

**Local Data:** In San Diego County, 45.0% of children under the age of 6 years participated in an immunization registry in 2009.

**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB.

### 14-27. Increase routine vaccination coverage levels for adolescents.

#### **Target and National Baseline:**

Objective	Increase percent of ado- lescents aged 13 to 15	1997 Baseline	2010 Target
	Years who have received the specified vaccinations	Perd	cent
14-27a.	3 or more doses of Hep B	48	90
14-27b.	2 or more doses of measles, mumps, rubella	89	90
14-27c.	1 or more doses of tetanus- diphtheria booster	93	90
14-27d.	1 or more doses of varicella	45	90

<sup>\*</sup>Data primarily are based on parental recall; provider verification has not occurred.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

#### Local Data:

**14-27a.** In San Diego County, 88.5% of adolescents ages 13 to 15 years had received 3 or more doses of the Hep B vaccine, in 2007.

Note: 2009 data not available.

**14-27b.** In San Diego County, 84.8% of adolescents ages 13 to 15 years had received 2 or more doses of the MMR vaccine, in 2007.

Note: 2009 data not available.

**14-27c.** In San Diego County, 53.0% of adolescents ages 13 to 15 years had received 1 or more doses of the tetanus-diphtheria booster vaccine, in 2009.

**14-27d.** In San Diego County, 84.7% of adolescents ages 13 to 15 years had received 1 or more doses of the Varicella vaccine. in 2007.

Note: 2009 data not available.

**Local Data Source:** County of San Diego, Health & Human Services Agency, EISB, 2007 and 2009 Random Digit Dial Survey.

### 14-28. Increase hepatitis B vaccine coverage among high-risk groups.

**Target and National Baseline:** 

Ohiective	Increase percent of speci- fied high-risk persons have	1995 Baseline	2010 Target			
	ever received at least 3 dos- es of hepatitis B vaccine	Percent				
14-28a.	Long-term hemodialysis patients	35	90			
14-28b.	Men who have sex with men	9 (1994-99)	60			
14-28c.	Occupationally exposed workers	67	93			

National Data Sources: Young Men's Survey, CDC, NCHHSTP; Annual Survey of Chronic Hemodialysis Centers, CDC, NCHHSTP and CMS; Periodic Vaccine Coverage Surveys, CDC, NCID.

# 14-29. Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.

#### **Target and National Baseline:**

Objective	Increase percent of adults who report having re- ceived the specified vac-	Baseline (year)*	2010 Target										
	cination.	Age-Adjuste	ed Percent										
	Noninstitutionalized adults aged 65 years and older												
14-29a.	Influenza vaccine	64 (1998)	90										
14-29b.	Pneumococcal vaccine	46 (1998)	90										
	Noninstitutionalized high 64 years	-risk adults d	aged 18 to										
14-29c.	Influenza vaccine	26 (1998)	60										
14-29d.	Pneumococcal vaccine	13 (1998)	60										
	Institutionalized adults (p care or nursing homes) <sup>†</sup>	ersons in lor	ng-term										
14-29e.	Influenza vaccine	59 (1997)	90										
14-29f.	Pneumococcal vaccine	25 (1997)	90										
	Noninstitutionalized high 64 years – health care wo		aged 18 to										
14-29g.	Influenza vaccine	30 (2000)	60										

<sup>\*</sup>Age adjusted to the year 2000 standard population.

National Data Sources: National Health Interview Survey (NHIS), CDC, NCHS noninstitutionalized populations; National Nursing Home Survey (NNHS), CDC, NCHS institutionalized populations.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because data for San Diego County reflect an actual percents. Healthy People data reflect age-adjusted percents. Additional differences may be noted below.

**14-29a.** In San Diego County, 69.4% of noninstitutionalized adults ages 65 years and older had received the influenza vaccine in 2009.

**14-29b.** In San Diego County, 61.0% of noninstitutionalized adults ages 65 years and older had received the pneumococcal vaccine in 2009.

**14-29c.** In San Diego County, 42.0% of noninstitutionalized high-risk adults ages 18 to 64 years had received the influenza vaccine in 2009.

**14-29d.** In San Diego County, 29.0% of noninstitutionalized high-risk adults ages 18 to 64 years had received the pneumococcal vaccine in 2009.

San Diego County data for 14-29e and 14-29f are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect all institutionalized adults as an age-adjusted percent. San Diego County data reflect nursing home residents by length of stay as an average percent.

**14-29e.** In San Diego County, 87% of long-stay and 82% of short stay nursing home residents received the influenza vaccine.

**14-29f.** In San Diego County, 87% of long-stay and 86% of short stay nursing home residents received the pneumococcal vaccine.

**14-29g.** In San Diego County, 61.2% of high risk adults—Healthcare workers—received the influenza vaccine in the past year in 2007.

(14-29e-g): 2009 data not available.

Local Data Sources: County of San Diego, Health & Human Services Agency, EISB, 2009 Random Digit Dial Survey; Nursing Home Compare, <a href="https://www.medicare.gov/NHCompare/home.asp">www.medicare.gov/NHCompare/home.asp</a> (accessed 2/10/09).



<sup>&</sup>lt;sup>†</sup>estimates include a significant number of residents who have an unknown vaccination status. See Tracking HP 2010 for further discussion of the data issues.

### Vaccine Safety

Vaccines are recommended for millions of healthy people, beginning at infancy. For this reason, a high standard of safety is expected. In order to make appropriate recommendations and to minimize adverse reactions related to vaccines, knowledge and monitoring of vaccine safety is essential.<sup>2</sup>



#### **HP 2010 Objectives**

### **14-30.** Reduce vaccine-associated adverse events. Target and National Baseline:

Objective		Baseline (year)	2010 Target	
		Nun	nber	
14-30a	Eliminate vaccine-associated paralytic polio (VAPP)	5 (1997)	0	
l14-30h.	Reduce febrile seizures fol- lowing pertussis vaccines	115 (1998)	57	

**National Data Sources:** National Notifiable Disease Surveillance System (NNDSS), CDC, NCHPI. Vaccine Adverse Event Reporting System (VAERS) and Vaccine Safety Datalink (VSD), CDC, OD, OCSO.

Local Data: No local data available

### 14-31. Increase the scientific knowledge on vaccines and adverse events.

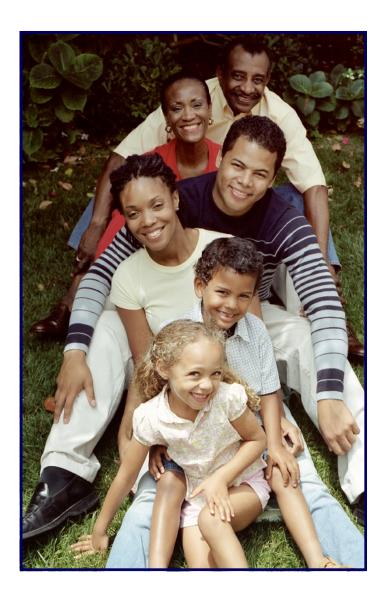
#### **Target and National Baseline:**

Ohiective	Increase electronic surveil-	Baseline (year)*	2010 Target
	lance of vaccine safety.	Nun	nber
14-31a.	Increase the number of persons under active surveillance for vaccine safety via large linked databases.	6 (1999)	13
14-31b.	Increase the proportion of total VAERS reports that are	16 (2003)	TBD

National Data Sources: Vaccine Safety Datalink (VSD), CDC, OD, OCSO. Vaccine Adverse Event Reporting System (VAERS), CDC, OD, OCSO, and FDA.

#### References

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#### SAN DIEGO COUNTY

Chapter 15

### Injury and Violence Prevention

**Healthy People 2010 Goal:** Reduce injuries, disabilities, and deaths due to unintentional injuries and violence.

Injuries, whether intentional or unintentional are the leading cause of death among people aged 1-44 years. Injuries account for about one-third of all emergency department visits and nearly 10% of hospital stays. Intentional injuries include homicide, suicide, and violence. Unintentional injuries include falls, drowning, and motor vehicle crashes, among many others.

Most people in the United States experience a significant injury at some point in their lives. These injuries have wide-ranging effects on individuals and their families, as well as on the society in which they live. Injuries cause more than 20% of deaths among children under 5 years old, and 80% of deaths among those aged 15 to 24 years. The financial cost for injuries is in the hundreds of millions, and include not only the direct medical care, but also rehabilitation, loss of income and productivity.

Most people mistakenly believe that unintentional injuries happen by chance and are unavoidable. On the contrary, injuries are not accidents; they are preventable. Prevention efforts are many and varied. Examples of effective prevention efforts include graduated driver licensing, safety belt and child restraint laws, which decrease the likelihood of motor vehicle crashes and mitigate injuries.<sup>2</sup>

#### Injury Prevention is less expensive! 2

- Every child safety seat saves \$85 in direct medical costs and \$1,275 in other costs.
- Every bicycle helmet saves \$395 in direct medical and other costs.
- Every smoke detector saves \$35 in direct medical costs and \$865 in other costs.
- Every dollar spent on poison control centers saves \$6.50 in medical costs.

Other preventative efforts target home safety such as smoke alarms and carbon monoxide testers, plus window guards and stair gates designed to keep children safe from falls and other hazards.

Intentional injuries are also avoidable. Successful violence prevention includes crisis hotlines and

counseling, establishing shelters, and offering programs to assist with drug and alcohol abuse prevention.<sup>2</sup>



### Head and Spinal Cord Injuries

Head and spinal cord injuries are among the most serious of injuries, and are often fatal. These injuries can result in permanent loss of function, paralysis, loss of brain function, permanent disability and often have long-term effects on a person's quality and length of life. These injuries also have substantial emotional and financial costs to the individual, and his or her family. People who have suffered debilitating head and spinal cord injuries often have secondary disabilities as well.

Motor vehicle crashes, falls, firearms, and water-related activities have the highest risks for head and spinal injuries. Death from pedalcycle, and motor vehicle crashes usually occur as a result of head injuries as well. Among the elderly, falls are the second leading cause of head and spinal cord injury, and among children, cause 75% of all deaths associated with playground equipment.<sup>2</sup>

#### **HP 2010 Objectives**

### 15-1. Reduce hospitalization for nonfatal head injuries.

**Target:** 41.2 hospitalizations per 100,000 population (age-adjusted).

**National Baseline:** 55.1 hospitalizations for nonfatal head injuries per 100,000 population occurred in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data use an actual rate of hospitalization. The Healthy People objective use an age-adjusted rate.

In San Diego County, the rate of hospitalizations due to head injury was 95.1 per 100,000 persons in 2009.

**Local Data Sources:** Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

### 15-2. Reduce hospitalization for nonfatal spinal cord injuries.

**Target:** 2.4 hospitalizations per 100,000 population (age-adjusted).

**National Baseline:** 4.5 hospitalizations for nonfatal spinal cord injuries per 100,000 population occurred in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data use an actual rate of hospitalization. The Healthy People objective uses an age-adjusted rate.

In San Diego County, the rate of hospitalizations due to spinal injury was 2.9 per 100,000 persons in 2009.

**Local Data Sources:** Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

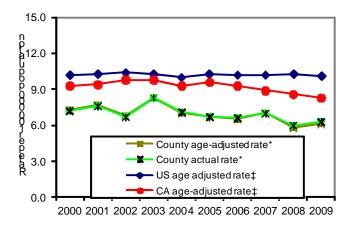
### **Firearms**

Each year, many people are injured or killed by firearms. While many of the individuals are victims of intentional injuries, such as assault, homicide and suicide, many are victims of the unintentional discharge of firearms.

Children are at great risk for injury or death because they are curious, and do not understand the risk of playing with guns. Firearm fatalities are higher among men than women, and higher among African American men than white men. Having a gun at home is highly associated with the increased risk of homicide and suicide among the household residents.

Efforts to reduce firearm injuries need to be targeted at different levels. Prevention efforts targeting individuals should include educating people about the risks associated with firearms. They should also be taught how to store and use firearms safely. Community-based efforts may include laws designed to keep firearms away from criminals and children.<sup>3</sup>

Figure 1. Firearm-related Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/6/2012: http://wonder.cdc.gov/cmf-icd10.html.

#### **HP 2010 Objectives**

#### 15-3. Reduce firearm-related deaths.

**Target:** 3.6 deaths per 100,000 population (ageadjusted).

**National Baseline:** 10.3 deaths per 100,000 population were related to firearm injuries in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted firearm-related death rate was 6.1 per 100,000 population in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted firearm-related death rate remained relatively stable between 2004 and 2009. It has been below the age-adjusted rates for the U.S. and California since 2000 (Figure 1). Regional level data is available by gender, race/ethnicity and age (Figure 2).

# 15-4. Reduce the proportion of persons living in homes with firearms that are loaded and unlocked.

Target: 16 percent (age-adjusted).

National Baseline: 19 percent of the population lived in homes with loaded and unlocked firearms in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data reflect persons who had firearms in or around their home. Healthy People data reflects persons who lived in homes with firearms that were loaded and unlocked.

In San Diego County, according to the California Health Interview Survey, 20.5% of adults aged 21 years and older had firearms in or around their home.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2001 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

15-5. Reduce nonfatal firearm-related injuries.

**Target:** 9.1 injuries per 100,000 population.

**National Baseline:** 23.5 nonfatal firearm-related injuries per 100,000 population occurred in 1997.

**National Data Source:** National Electronic Injury Surveillance System (NEISS), Consumer Product Safety Commission (CPSC).

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data reflect persons who were treated and discharged from the emergency department (ED). Healthy People uses all ED visits.

In San Diego County, according to ED discharge data, the rate of persons who were treated and released from EDs due to firearm injury was 6.6 per 100,000 in 2009.

**Local Data Sources:** County of San Diego, HHSA, Emergency Medical Services, Emergency Department Database; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

Figure 2. Firearm-Related Deaths Among San Diego Residents by Region of Residence, 2009

I Igure 2.	No	orth astal	N	orth ntral		ntral		outh		ast	No	orth and		ınty	County age-
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	27	5.0	36	5.8	48	9.3	22	4.8	32	6.8	35	6.0	200	6.3	6.1
Gender															
Male	23	8.3	31	10.0	41	15.8	21	9.2	28	12.2	32	11.3	176	11.1	11.1
Female	<5	§	5	1.6	7	2.8	<5	§	<5	§	<5	§	24	1.5	1.4
Race/ Ethnicity															
White	23	7.3	29	7.5	17	12.4	10	8.8	20	6.7	30	9.0	129	8.1	6.8
Black	<5	§	<5	§	10	15.1	<5	§	5	19.7	<5	§	18	10.8	10.2
Hispanic	<5	§	<5	§	14	6.4	9	3.6	7	6.8	<5	§	40	4.2	4.0
API‡	<5	§	<5	§	6	8.4	<5	§	<5	§	<5	§	12	3.5	3.2
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	6	6.4	<b>&lt;</b> 5	§	13	15.9	6	7.9	<5	§	<5	§	32	6.4	
25-64	13	4.8	24	6.8	31	11.1	10	4.3	24	9.6	22	7.4	124	7.4	
65+	8	13.1	12	14.8	<b>&lt;</b> 5	§	6	12.4	<5	§	9	12.0	43	11.7	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA Community EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Firearm-Related Death refers to (underlying cause of death) ICD-10 codes W32-W34, X72-X74, U01.4, X93-X95, Y22-Y24, Y35.0. This includes all intents.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

### **Child** Fatality Review

Prevention of fatal childhood injuries is the objective of the Child Fatality Review Team (CFRT), a group that reviews "suspicious" or "preventable" childhood deaths. The CFRT is comprised of individuals from the health, criminal justice, and social services. Reviews are typically focused on children under the age of 15 years, and those deaths which were "unexplained". The review teams evaluate information from various sources to determine whether the cause and manner of death have been reported correctly. CFRTs also suggest ways to prevent future deaths.<sup>2</sup>



#### **HP 2010 Objectives**

15-6. Increase the number of States and the District of Columbia where 100 percent of deaths to children aged 17 years and under that are due to external causes are reviewed by a child fatality team.

Target: 51 states and D.C.

**National Baseline:** 10 jurisdictions had 100 percent of deaths to children aged 17 years and under that are due to external causes reviewed by a child fatality team in 2000.

**National Data Source:** National Vital Statistics System - Mortality (NVSS-M), CDC/NCHS.

**Local Data**: In San Diego County, according to the office of the Medical Examiner, 100 percent of deaths to children aged 17 years and under that are due to external causes are reviewed by a child fatality team.



### Poisoning and Suffocation

Poisoning refers to illness, injury, or death resulting from a person eating, drinking, breathing or touching a toxic chemical. Some toxins can kill rapidly in very small amounts, while others cause illness or death only after a long exposure. "Unintentional poisoning" is defined as poisoning that occurs by accident, while "intentional" poisoning results from a willful decision.<sup>4</sup>

Children, especially the very young, have a much higher risk for unintentional poisoning injury than adults. This is because of their smaller size and because they are far more likely to be exposed accidentally to a poison. However, although their mortality rate is lower than older individuals.<sup>5</sup>

#### Keep Children Safe from Poisoning<sup>5</sup>

- Keep all drugs out of reach.
- Do not call medicine "candy"
- Never leave household products out.
- Be aware of any drugs or medication that family or friends bring into the house.
- Keep the poison control number handy. 1 -800-222-1222

The risk of suffocation (asphyxia) deaths and airway obstruction injuries are highest among children, particularly those under 5 years. Younger children are treated in emergency departments predominantly for ingesting toys, toy parts, and other items which they try to swallow. Most suffocation, strangulations, and choking injuries occur at home. In addition to injury from choking on food or toys, infants have been suffocated by their own bedding. The annual cost associated with airway obstruction among children under age 15 is over \$1.5 billion.<sup>2</sup>

#### **HP 2010 Objectives**

#### 15-7. Reduce nonfatal poisonings.

**Target:** 292.0 nonfatal poisonings per 100,000 population (age-adjusted).

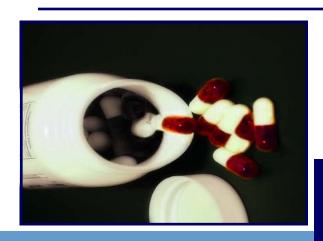
**National Baseline:** 348.3 nonfatal poisonings per 100,000 population occurred in 1997 (age-adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data refer to all poisonings discharged from Emergency Department. Healthy People data refer to nonfatal poisoning visits to Emergency Departments. Also, Healthy People data are age-adjusted; San Diego County data are not.

In San Diego County, the age-adjusted rate of emergency department discharge for poisonings was 143.3 per 100,000 persons, in 2009.

**Local Data Sources:** County of San Diego, HHSA, Emergency Medical Services, Emergency Department Database; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.



#### 15-8. Reduce deaths caused by poisonings.

**Target:** 1.5 deaths per 100,000 population (ageadjusted).

**National Baseline:** 7.1 deaths per 100,000 population were caused by poisonings in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

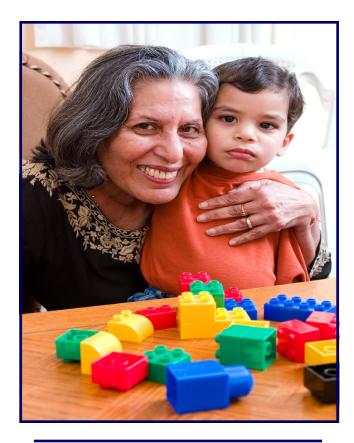
**Local Data:** In San Diego County, the age-adjusted poisoning death rate was 12.6 per 100,000 population in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The county age-adjusted poisoning death rate increased between 2006 and 2009. It dropped below the age-adjusted rate for the U.S. in 2005 (Figure 3). Regional level data is available by gender, race/ethnicity and age (Figure 4).

Prescription medications are a leading cause of poisoning in young children. Medications should be secured in labeled containers with child resistant caps.





#### 15-9. Reduce deaths caused by suffocation.

**Target:** 3.3 deaths per 100,000 population (ageadjusted).

**National Baseline:** 4.2 deaths per 100,000 population were caused by suffocation in 1999 (age adjusted to the year 2000 standard population).

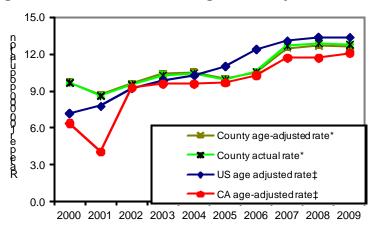
**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data refer use an actual rate. Healthy People data uses an age-adjusted rate.

In San Diego County, the suffocation death rate was 3.6 per 100,000 population in 2009.

Local Data Source: Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

Figure 3. Overdose/Poisoning Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011;

SANDAG, Current Population Estimates, 10/2010.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed

8/6/2012: http://wonder.cdc.gov/cmf-icd10.html.

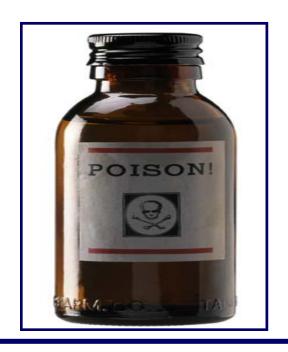


Figure 4. Overdose/Poisoning<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		4000,														
		orth astal		orth ntral	Cer	ntral	So	uth	E	ast		orth and	Cou	ınty	County age- adjusted rate*	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*		
Total**	58	10.8	68	10.9	102	19.9	40	8.7	83	17.6	55	9.5	409	12.8	12.6	
Gender																
Male	34	12.3	40	12.9	61	23.5	31	13.6	44	19.1	37	13.0	250	15.7	15.4	
Female	24	9.2	28	8.9	41	16.2	9	3.9	39	16.2	18	6.1	159	10.0	9.6	
Race/ Ethnicity																
White	49	15.5	56	14.5	75	54.8	18	15.9	67	22.4	45	13.5	312	19.7	18.0	
Black	<5	§	<5	§	12	18.1	<5	§	<5	§	<5	§	19	11.4	11.7	
Hispanic	7	4.7	8	9.9	14	6.4	19	7.6	11	10.7	5	3.1	65	6.8	7.9	
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	6	1.8	1.7	
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	7	5.3	6.3	
Age Group																
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§		
15-24	<b>&lt;</b> 5	§	<5	§	<5	§	<5	§	5	7.1	9	10.2	24	4.8		
25-64	55	20.2	59	16.7	95	34.1	37	16.0	73	29.1	42	14.1	364	21.6		
65+	<5	§	7	8.7	<5	§	<5	§	5	8.7	<5	§	21	5.7		

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Overdose/Poisoning Death refers to (underlying cause of death) ICD-10 codes X40-X49, X60-X69, X85-X90, Y10-Y19, Y35.2, U01.6-U01.7. This includes all intents.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

### Surveillance Systems

Emergency department and hospital discharge systems are a valuable source of public health surveillance data. Emergency departments in particular are in an excellent position to provide data on the cause and severity of injury. The ability to access such data is critical to public health prevention efforts.<sup>2</sup>

**Local Data**: In San Diego County, according to the Community Epidemiology Branch, data is collected on external causes of injury through hospital discharge data systems.

#### **HP 2010 Objectives**

15-10. Increase the number of States and the District of Columbia with statewide emergency department surveillance systems that collect data on external causes of injury.

Target: 51

**National Baseline:** 12 States had statewide ED surveillance systems that collected data on external causes of injury in 1998.

**National Data Source:** External Cause of Injury Survey, American Public Health Association (APHA).

**Local Data:** In San Diego County, according to Emergency Medical Services, emergency department surveillance systems are used to collect data on external causes of injury.

15-11. Increase the number of States and the District of Columbia that collect data on external causes of injury through hospital discharge data systems.

Target: 51

**National Baseline:** 23 States collected data on external causes of injury through hospital discharge data systems in 1998.

**National Data Source:** External Cause of Injury Survey, American Public Health Association (APHA).

### 15-12. Reduce hospital emergency department visits caused by injuries.

**Target:** 108 hospital emergency department visits per 1,000 population (age-adjusted).

**National Baseline:** 109 hospital emergency department visits per 1,000 population were caused by injury in 2001 (age adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data reflect persons who were treated and discharged from the emergency department (ED) and use an actual rate. Healthy People data reflects all ED visits using an age-adjusted rate.

In San Diego County, the rate of emergency department discharge for all injuries was 50.4 per 1,000 persons, in 2009.

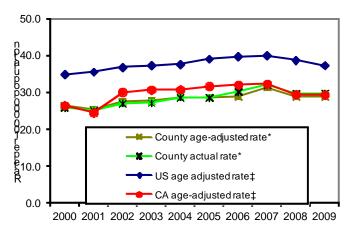
Local Data Sources: County of San Diego, HHSA, Emergency Medical Services, Emergency Department Database; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

### **Unin**tentional Injuries

More people aged 1 through 34 years die due to unintentional injuries than for any other cause of death.<sup>2</sup> Motor vehicle crashes account for roughly half of all unintentional injury deaths, followed by falls, poisonings, suffocations, and drownings.<sup>2</sup>

Unintentional injuries cause lifelong suffering and disability, and occur most often among the very young and the elderly. However, they are preventable. Furthermore, it costs less to prevent injuries than to treat them. Injury prevention is complex, and involves all sectors of society. No single entity can work to reduce the number of injuries. Injury prevention thus requires cooperation in order to achieve improved outcomes.<sup>2</sup>

Figure 5. Unintentional Injury Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/6/2012: http://wonder.cdc.gov/cmf-icd10.html.

#### **HP 2010 Objectives**

### 15-13. Reduce deaths caused by unintentional injuries.

**Target:** 17.1 deaths per 100,000 population (ageadjusted).

**National Baseline:** 35.3 deaths per 100,000 population were caused by unintentional injuries in 1999 (age-adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted unintentional injury death rate was 28.9 per 100,000 population in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted unintentional injury death rate increased slightly between 2000 and 2007. It has been below the age-adjusted rates for the U.S. and California since 2002 (Figure 5). Regional level data is available by gender, race/ethnicity and age (Figure 6).

### 15-14. Reduce emergency department visits for nonfatal unintentional injuries.

**Target:** 9,000 visits per 100,000 population (ageadjusted).

**National Baseline:** 9,767.4 initial hospital emergency department visits for unintentional injuries per 100,000 population occurred in 2000 (age adjusted to the year 2000 standard population).

National Data Source: Electronic Injury Surveillance

System (NEISS), CDC, NCIPC.

Local Data: No local data available.



Figure 6. Unintentional Injury <sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	inty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	148	27.6	161	25.8	156	30.4	108	23.4	179	38.0	190	32.8	949	29.8	28.9
Gender															
Male	98	35.4	94	30.3	95	36.5	75	32.8	117	50.9	129	45.4	614	38.6	39.3
Female	50	19.2	67	21.3	61	24.1	33	14.2	62	25.7	61	20.7	335	21.0	18.9
Race/ Ethnicity															
White	119	37.7	138	35.7	87	63.5	50	44.2	133	44.4	138	41.4	671	42.3	35.5
Black	<5	§	<5	§	21	31.7	<5	§	9	35.4	<5	§	42	25.2	26.2
Hispanic	22	14.7	13	16.1	40	18.4	47	18.8	28	27.3	30	18.5	181	18.8	23.6
API‡	<5	§	7	6.5	6	8.4	6	9.7	6	30.8	7	14.1	34	10.0	10.3
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	11	49.9	21	15.9	16.5
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	6	6.5	5	4.3	24	3.8	
15-24	18	19.3	9	10.1	12	14.7	10	13.2	12	17.1	28	31.7	90	18.0	
25-64	84	30.9	86	24.4	117	42.0	58	25.1	105	41.9	88	29.5	544	32.3	
65+	42	69.0	65	80.4	23	50.6	36	74.4	56	97.0	69	92.2	291	79.0	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Unintentional Injury death refers to (underlying cause of death) ICD-10 codes V01-X59, Y85-Y86.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

### Traffic-Related Injuries

Motor vehicle crashes are a major cause of injury for all ages, but they are the leading cause of death among persons aged 5 to 29 years in the United States.<sup>2</sup> Risk factors for crashes include use of alcohol, younger age, and drug use. The most effective way to prevent death and serious injury is for occupants in a motor vehicle to wear their safety belts. Other measures include child safety seats and laws such as graduated licensing.

Pedestrians, particularly children and older adults, are very likely to be killed or seriously injured if struck by a motor vehicle. Children are more likely to be injured walking to or from school and when crossing the street. Injuries are more likely to occur during daylight, and in urban areas where more people are out and about. Crossing lights, sidewalks, and pedestrian walkways help prevent pedestrians from be injured.<sup>2</sup>

In 2002, nearly 60 million people rode a bicycle at least once during the year, to commute to school or work, or just for recreation and exercise. This means that there is a high risk for injury. Head injuries are the most serious type of injury sustained by pedalcyclists of all ages, and are the most likely to prove fatal. Bicycle helmets dramatically reduce the risk of bicycle-related head injuries. The death rate from a head injury has been shown to double among cyclists in places where there are no helmet laws, or where laws apply only to children.<sup>2</sup>

Motorcycle use carries an increased risk for traumatic injury and death as compared to motor vehicle use. Motorcycle riders do not have the safety inherent in an enclosed vehicle so in a crash they are likely to suffer serious injury or death. The major cause of death for motorcyclists is from head injury. Helmet laws and motorcycle driving classes work to protect drivers from injury.<sup>2</sup>

#### **HP 2010 Objectives**

### 15-15. Reduce deaths caused by motor vehicle crashes.

#### **Target and National Baseline:**

Objective	Reduction in Deaths Caused by Motor Vehicle	Baseline	2010 Target
	Crashes		
15-15a.	Deaths per 100,000 population	14.7 (1999)*	8.0*
15-15b.	Deaths per 100 million vehicle miles traveled	1.6 (1998)	0.8

<sup>\*</sup>Age adjusted to the year 2000 standard population.

**National Data Sources:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS; Fatality Analysis Reporting System (FARS), DOT, NHTSA; Highway Performance Monitoring System, DOT, FHWA.

#### **Local Data:**

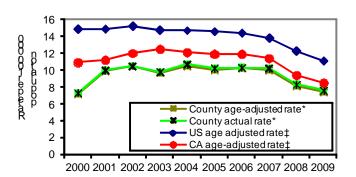
**15-15a:** In San Diego County, the age-adjusted rate of motor vehicle crash deaths was 7.4 per 100,000 population, in 2009.

**15-15b:** In San Diego County, according to the Department of Transportation, the rate of motor vehicle crash deaths was 1.1 per 100 million miles traveled, in 2004. *Note: 2009 data not available.* 

Local Data Source: Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011. United States Department of Transportation.



Figure 7. Death Due to Motor Vehicle Accidents on Public Roads by Year



\* Source: Death Statistical Master Files (CA DPH), CoSD, HHSA,EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/6/2012: http://wonder.cdc.gov/cmf-icd10.html.

**Detailed Local Data:** The County age-adjusted motor vehicle death rate increased between 2000 and 2004 and decreased slightly from 2005 to 2009. It was below the age-adjusted rates for the U.S. and California from 2000-2009 (Figure 7). Regional level data is available by gender, race/ethnicity and age (Figure 8).

Figure 8. Death Due to Motor Vehicle Accidents <sup>†</sup> on Public Roads Among San Diego Residents by Region of Residence, 2009

	l	orth astal		orth ntral	Cei	ntral	So	outh	E	ast		orth and	Cou	ınty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	adjusted rate
Total**	31	5.8	33	5.3	31	6.0	36	7.8	45	9.6	64	11.1	242	7.6	7.4
Gender															
Male	27	9.8	24	7.7	23	8.8	26	11.4	35	15.2	45	15.9	182	11.5	11.2
Female	<5	§	9	2.9	8	3.2	10	4.3	10	4.1	19	6.4	60	3.8	3.7
Race/ Ethnicity															
White	21	6.6	24	6.2	6	4.4	17	15.0	28	9.4	39	11.7	137	8.6	7.9
Black	<5	§	<5	§	6	9.0	<5	§	6	23.6	<5	§	16	9.6	9.9
Hispanic	9	6.0	6	7.4	15	6.9	13	5.2	9	8.8	16	9.9	68	7.1	7.3
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	10	2.9	2.8
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	5	22.7	11	8.3	6.6
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	10	1.6	
15-24	12	12.8	8	9.0	7	8.6	8	10.5	9	12.8	16	18.1	61	12.2	
25-64	14	5.1	18	5.1	21	7.5	13	5.6	26	10.4	35	11.7	128	7.6	
65+	<5	§	6	7.4	<5	§	13	26.9	7	12.1	12	16.0	43	11.7	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Motor Vehicle Death refers to (underlying cause of death) ICD-10 codes V30-V39 (.4-.9), V40-V49 (.4-.9), V50-V59 (.4-.9), V60-V69 (.4-.9), V70-V79 (.4-.9), V81.1, V82.1, V83-V86 (.0-.3), V20-V28 (.3-.9), V29 (.4-.9), V12-V14 (.3-.9), V19 (.4-.6), V02-V04 (.1, .9), V09.2, V80 (.3-.5), V87 (.0-.8), V89.2. All intents.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

#### 15-16. Reduce pedestrian deaths on public roads.

Target: 1.0 pedestrian death per 100,000 population.

**National Baseline:** 1.9 pedestrian deaths per 100,000 population occurred on public roads in 1998.

**National Data Source:** Fatality Analysis Reporting System (FARS), DOT, NHTSA.

**Local Data:** In San Diego County, the rate of pedestrian deaths was 1.9 per 100,000 population in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted pedestrian death rate was relatively stable between 2000 and 2004, with a slight spike in 2002. Between 2007 and 2009 it remained relatively stable. It was slightly above the age-adjusted rates for the U.S. and California in 2002 (Figure 9). Regional level data is available by gender, race/ethnicity and age (Figure 10).

### 15-17. Reduce nonfatal injuries caused by motor vehicle crashes.

**Target:** 933 nonfatal injuries per 100,000 population.

**National Baseline:** 1,181 nonfatal injuries per 100,000 population were caused by motor vehicle crashes in 1998.

National Data Source: General Estimates System

(GES), DOT, NHTSA.

Local Data: No local data available.



### 15-18. Reduce nonfatal pedestrian injuries on public roads.

**Target:** 19 nonfatal injuries per 100,000 population.

**National Baseline:** 26 nonfatal pedestrian injuries per 100,000 population occurred on public roads in 1998.

**National Data Source:** General Estimates System (GES), DOT, NHTSA.

**Local Data:** In San Diego County, the rate of nonfatal pedestrian injury was 33.1 per 100,000 population in 2009.

**Local Data Source:** Statewide Integrated Traffic Records System (SWITRS), County of San Diego, Health & Human Services Agency, Emergency Medical Services; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

#### 15-19. Increase use of safety belts.

Target: 92 percent.

**National Baseline:** 69 percent of the total population used safety belts in 1998.

**National Data Source:** National Occupant Protection Use Survey (NOPUS), DOT, NHTSA.

Local Data: No local data available.

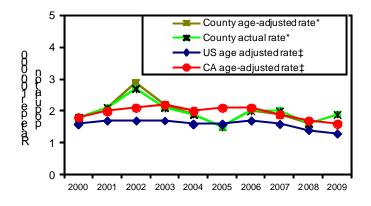
#### 15-20. Increase use of child restraints.

Target: 100 percent.

**National Baseline:** 95 percent of motor vehicle occupants aged 3 years and under used child restraints in 2002.

**National Data Source:** National Occupant Protection Use Survey (NOPUS), Controlled Intersection Study, DOT, NHTSA.

Figure 9. Pedestrian Deaths due to Motor Vehicle Accidents on Public Roads by Year



\* Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/6/2012: http://wonder.cdc.gov/cmf-icd10.html.



Figure 10. Pedestrian<sup>†</sup> Deaths due to Motor Vehicle Accidents on Public Roads Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	ınty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	aujusteu rate
Total**	7	1.3	8	1.3	11	2.1	8	1.7	9	1.9	15	2.6	59	1.9	1.9
Gender															
Male	7	2.5	5	1.6	9	3.5	6	2.6	7	3.0	11	3.9	46	2.9	3.0
Female	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	13	0.8	0.8
Race/ Ethnicity															
White	<5	§	5	1.3	<5	§	<5	§	7	2.3	8	2.4	30	1.9	1.7
Black	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	8	4.8	5.8
Hispanic	<5	§	<5	§	<5	§	<5	§	<5	§	5	3.1	16	1.7	2.2
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	5	1.0	
25-64	<5	§	5	1.4	10	3.6	<5	§	7	2.8	8	2.7	35	2.1	
65+	<5	§	<5	§	<5	§	7	14.5	<5	§	5	6.7	16	4.3	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Pedestrian Death refers to (underlying cause of death) ICD-10 codes V02-V04 (.1, .9), V09.2.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

## 15-21. Increase the proportion of motorcyclists using helmets.

Target: 79 percent.

National Baseline: 67 percent of motorcycle opera-

tors and passengers used helmets in 1998.

Data sources: National Occupant Protection Use

Survey (NOPUS), DOT, NHTSA.

Local Data: No local data available.

# 15-22. Increase the number of States and the District of Columbia that have adopted a graduated driver licensing model law.

Target: 51

National Baseline: 23 States had a graduated driver

licensing model law in 1999.

**National Data Source:** U.S. Licensing Systems for Young Drivers, Insurance Institute for Highway Safety.

**Local Data**: California has adopted a graduated driver licensing model law.

## 15-23. Increase the proportion of bicyclists who regularly wear a bicycle helmet.

#### **Target and National Baseline:**

Ohiective	Increase the proportion of bicycle riders, of specified ages, who regularly wear	1998 Baseline	2010 Target	
	a helmet while bicycling	Percent		
15-23a.	Children aged 1 to 15 years	69	76	
バ <b>ち</b> -ノスカ	Adults aged 16 years and older	38	42	

**National Data Source:** National Bike Helmet Use Survey, U.S. Consumer Product Safety Commission.

Local Data: San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data reflect those who "always" or "usually" wear a helmet when riding a bicycle. Healthy People data reflect those who "regularly" wear a helmet when riding a bicycle. Also San Diego County data reflects ages 6-15 (a) and ages 16-17 (b) compared to Healthy People's ages 1-15 (a) and ages 16 and older (b).

**15-23a:** In San Diego County, according to the 2003 California Health Interview Survey, 53.4% of children aged 6 through 15 years who rode a bicycle in the past year reported that they always wore a helmet when riding a bicycle.

In San Diego County, according to the 2003 California Health Interview Survey, 15.2% of children aged 6 through 15 years who rode a bicycle in the past year reported that they usually wore a helmet when riding a bicycle.

**15-23b:** In San Diego County, according to the 2003 California Health Interview Survey, 28.8% of individuals aged 16 through 17 years who rode a bicycle in the past year reported that they always wore a helmet when riding a bicycle.

Note(15-23a,b): 2009 data not available.

**Local Data Source**: UCLA Center for Health Policy Research, "2003 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

# 15-24. Increase the number of States and the District of Columbia with laws requiring bicycle helmets for bicycle riders.

Target: 51

**National Baseline:** 10 States had laws requiring bicycle helmets for bicycle riders under age 15 years in 1999.

National Data Source: National Safe Kids Campaign.

**Local Data**: California has laws, which apply to San Diego, requiring bicycle helmets for bicycle riders.

Local Data Source: California Department of Public Health, "Healthy California 2010 Report," <a href="http://www.cdph.ca.gov/data/indicators/goals/Pages/default.aspx/">http://www.cdph.ca.gov/data/indicators/goals/Pages/default.aspx/</a>, (accessed 1/2009).

### **Residential Fires**

Injury from fire can come from direct contact (burns), or from smoke and toxin inhalation. Long term effects of fire-related injuries can include scarring, nerve damage, infection, loss of limb(s), and/or decreased lung function. Fires are a leading cause of fatal unintentional injuries among children; nearly two-thirds (65%) of children killed by fire are those under 5 years of age. Children are particularly at risk because they do not know how to react appropriately to the danger and because they generally sustain greater injury from burns.<sup>2</sup>

Smoking is the leading cause of fatal fires, and cooking is the main cause of fires in the home. Prevention of injury due to fires in the home include installing smoke alarms, having an escape plan, and cooking with care.

### **HP 2010 Objectives**

#### 15-25. Reduce residential fire deaths.

**Target:** 0.2 deaths per 100,000 population (ageadjusted).

**National Baseline:** 1.0 deaths per 100,000 population were caused by residential fires in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data refer to actual rate. Healthy people data refer to age-adjusted rate.

In San Diego County, the rate of residential fire death was 0.2 per 100,000 in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

### 15-26. Increase functioning residential smoke alarms.

#### **Target and National Baseline:**

Objective	Increase functioning residential smoke alarms as	1998 Baseline	2010 Target	
,	specified	Percent		
15-26a.	Total population living in residences with function smoke alarm on every floor	88	100	
15-26b.	Residences with a function- ing smoke alarm on every floor	87	100	

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.



### Falls

Injuries due to falls range in severity from bruises to fractures and trauma, and have a direct impact on an individual's ability to move and/or live independently. They can also increase the risk of premature death.

Falls are the leading cause of non-fatal injuries among children and adolescents aged 0 to 19, and account for nearly 3 million individuals treated in emergency departments across the country annually. There are several things that can be done to help reduce the likelihood and severity of injuries among children. These include using home safety devices (gates, rails, window guards), properly designed and maintained playground equipment, and ensuring that children wear protective gear such as helmets and pads when playing sports. In addition, young children should be supervised at all times when they are near any kind of fall hazards. The supervised at all times when they are near any kind of fall hazards.

Falls are the leading cause of injury death among adults aged 65 years and older. In the United States, more than one third of adults 65 and older fall each year. Older adults are at particular risk because of impaired mobility, neurological or muscular disability, medications, dementia, or visual impairment. Falls have an enormous impact on the quality of life of older Americans. Half of those who fall sustain injury that makes them unable to return home or live independently after a hip fracture.

#### **Fall Prevention Strategies**

- See a doctor regularly
- Monitor medications
- Reduce fall hazards in the home
- Exercise regularly
- Treat osteoporosis
- Get regular eye exams

### **HP 2010 Objectives**

#### 15-27. Reduce deaths from falls.

**Target:** 3.3 deaths per 100,000 population (ageadjusted).

**National Baseline:** 4.8 deaths per 100,000 population were caused by falls in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

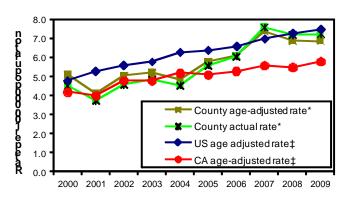
**Local Data:** In San Diego County, the age-adjusted rate of fall deaths was 6.9 per 100,000 population in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted fall death rate was above the age-adjusted rate for California but below the age-adjusted rate for the U.S. in 2009 (Figure 11). Regional level data is available by gender, race/ethnicity and age (Figure 12).



Figure 11. Fall-Related Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

 $\ensuremath{\ddagger}$  Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed

8/8/2012: http://wonder.cdc.gov/cmf-icd10.html.



Figure 12. Fall-Related<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	outh	E	ast		orth and	Cou	ınty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	aajastea rate
Total**	35	6.5	48	7.7	24	4.7	27	5.9	46	9.8	51	8.8	231	7.3	6.9
Gender															
Male	18	6.5	23	7.4	11	4.2	14	6.1	23	10.0	30	10.6	119	7.5	8.5
Female	17	6.5	25	8.0	13	5.1	13	5.6	23	9.5	21	7.1	112	7.0	5.6
Race/ Ethnicity															
White	33	10.4	44	11.4	13	9.5	16	14.1	38	12.7	45	13.5	189	11.9	7.7
Black	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Hispanic	<5	§	<5	§	7	3.2	9	3.6	<5	§	<5	§	23	2.4	4.9
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	14	4.1	4.6
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	7	2.6	<5	§	6	2.2	6	2.6	7	2.8	6	2.0	36	2.1	
65+	28	46.0	44	54.4	18	39.6	21	43.4	39	67.5	44	58.8	194	52.7	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Fall-Related Death refers to (underlying cause of death) ICD-10 codes W00-W19; accidental falls.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

#### 15-28. Reduce hip fractures among older adults.

#### **Target and National Baseline:**

	Deal allows to black to a	1998	2010		
Objective	Reduction in hip frac- ture hospitalizations in	Baseline*	Target		
,	specified population	Age Adjusted Percent			
15-28a.	Females aged 65 years and older	1,055.8	416.0		
15-28b.	Males aged 65 years and older	592.7	459.5		

<sup>\*</sup>Age adjusted to the year 2000 standard population.

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data refer to actual rate. Healthy people data refer to age-adjusted rate.

**15-28a:** In San Diego County, the hip fracture hospitalization rate among females aged 65 years and older was 694.9 per 100,000 in 2009.

**15-28b:** In San Diego County, the hip fracture hospitalization rate among males aged 65 years and older was 393.4 per 100,000 in 2009.

Local Data Source: Hospital Inpatient Discharge Database, County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.





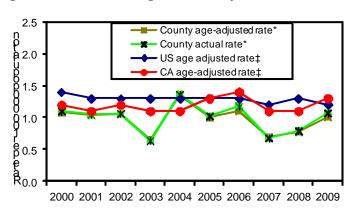
## Drowning

Children and young adults are at the greatest risk for drowning, particularly among children under 5 years. The pattern of drowning varies by age groups. Children under 1 year most often drown in bathtubs, buckets, and toilets. Children 1-4 most often drown in swimming pools, hot tubs, and spas, while those aged 5-14 drown most often in swimming pools and open bodies of water such as the ocean, in lakes, or in rivers.

One reason children drown is that adults do not recognize the signs that a child is having trouble in the water. Children may not splash or call for help, and may not be strong enough to wave their arms and signal that they are in distress. Children usually drown silently.

Drowning can be prevented. Parents should supervise children when they are near water, even toilets and bathtubs. Small children can drown even in a few inches of water. Swimming pools should be fenced in and covered when not in use, and all children should be taught how to swim and float. For adults, alcohol use should not be combined with boating, water skiing or other type of water recreation.<sup>9</sup>

#### Figure 13. Drowning Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed

8/8/2012: http://wonder.cdc.gov/cmf-icd10.html.

Note: The County actual and age adjusted rates are nearly identical for the time period shown.

### **HP 2010 Objectives**

#### 15-29. Reduce drownings.

**Target:** 0.7 drownings per 100,000 population (ageadjusted).

**National Baseline:** 1.5 drownings per 100,000 population occurred in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted drowning death rate was 1.0 per 100,000 in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted drowning death rate was below the age-adjusted rate for the U.S. and California in 2009 (Figure 13).



### Dog Bites

Millions of people are bitten by dogs in the United States each year, and about half of all people are estimated to have been bitten as children. Children are particularly vulnerable, as they are smaller than adults, and do not know how to avoid the dog bite. Most dog bites of children occur to the child's face, head or neck. Because of the high risk to a large population, effective surveillance is needed to identify types of dogs most likely to bite, and the types of situations where a dog bite is most likely to occur. Surveillance is necessary to design and implement effective prevention programs.<sup>2</sup>



### **HP 2010 Objectives**

# 15-30. Reduce hospital emergency department visits for nonfatal dog bite injuries.

**Target:** 114.0 hospital emergency department visits per 100,000 population (age-adjusted).

**National Baseline:** 151.5 hospital emergency department visits per 100,000 population were for nonfatal dog bite injuries in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data reflect persons who were treated and discharged from the emergency department (ED) and use an actual rate. Healthy People data reflects all ED visits using an age-adjusted rate.

In San Diego County, the rate of emergency department discharge for dog bite injuries was 63.9 per 100,000 persons, in calendar year 2009.

Local Data Sources: Hospital Association of San Diego & Imperial Counties, Community Health Improvement Partners, and County of San Diego Health & Human Services Agency, Public Health Services Emergency Medical Services, Emergency Department Discharge Database 2009; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego Health & Human Services Agency, Public Health Services Community Health Statistics, 2011.

# School Sports

Participation in school sports increases the likelihood of unintentional injury, including bruises, strains, sprains, fractures and concussions.

Concussions are a type of traumatic brain injury caused by a blow or bump to the head, and may produce the most serious consequences.

Concussions can be mild or severe, and may be associated with immediate symptoms. These symptoms include unconsciousness, headache, nausea and fatigue. They can also occur later and be difficult to recognize or associate with the injury. Concussions can also result in long term consequences such as mood change and memory loss. If the injury is severe enough to cause bleeding or brain damage and not immediately recognized, death may occur. 10

Concussions can be caused by person to person contact, hitting the ground, a piece of equipment, or another object during play or practice. Among males, the leading cause of concussion comes from playing football, and among females, playing soccer.

### **HP 2010 Objectives**

15-31. Increase the proportion of public and private schools that require students to wear appropriate protective gear when engaged in school-sponsored physical activities.

#### **Target and National Baseline:**

Objective	Increase the proportion of public and private schools that require students to	2000 Baseline	2010 Target
	wear appropriate protec- tive gear when engaged in the specified activities	Perd	cent
15-31a.	Physical education	77	85
15-31b.	Interscholastic sports	98	100
15-31c.	Intramural activities or physical activity clubs	88	97

National Data Source: School Health Policies and

Programs Study (SHPPS), CDC, NCCDPHP.

Local Data: No local data available.

### Prevention of injury during sports<sup>10</sup>

- Adult supervision of school sports
- Wear helmets and other properly fitting safety gear
- Promote good sportsmanship
- Injured players should be seen immediately by a health professional



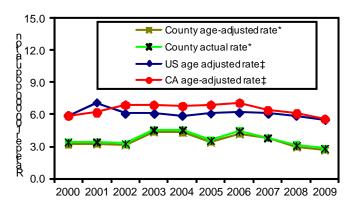
# Homicide and Maltreatment of Children

Homicide, suicide, assault and abuse impact individuals, families, and communities everywhere in the country. People who are victims of violence, but survive, often sustain long-term physical injury and suffer significant emotional trauma. Violence destroys communities by reducing quality of life, productivity, property values and services.

Violence prevention must be addressed at multiple levels, by targeting individuals and communities. Methods include surveillance of violence-related deaths and injuries, conducting research on risk factors for violence, as well as protective influences, developing and evaluating prevention programs, and helping national, state and local agencies adopt and improve prevention strategies.<sup>11</sup>

Child maltreatment involves injury to a child under the age of 18 from neglect, physical, sexual or emotional abuse. Most often, the perpetrators are the victim's parents, or relatives. Maltreatment of any kind results in a negative effect on a child's overall health.

Figure 16. Homicide Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/8/2012: http://wonder.cdc.gov/cmf-icd10.html.

### **HP 2010 Objectives**

#### 15-32 Reduce homicides.

Target: 2.8 per 100,000 population (age-adjusted).

**National Baseline:** 96.0 deaths due to homicides per 100,000 population were recorded in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS.

**Local Data:** In San Diego County, the age-adjusted homicide death rate was 2.7 per 100,000 population in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted homicide rate decreased between 2006 and 2009. It was well below the age-adjusted rates for the U.S. and California during this time period (Figure 16). Regional level data is available by gender, race/ethnicity and age (Figure 17).



## 15-33. Reduce maltreatment and maltreatment fatalities of children.

#### **Target and National Baseline:**

Objective	Reduce the following in children under 18 years of	1998 2010 Baseline Target				
	age	Rate per 1,000 pop- ulation				
15-33a.	Maltreatment	12.7	10.2			
15-33b.	Maltreatment fatalities	1.7	1.5			

**National Data Source:** National Child Abuse and Neglect Data System (NCANDS), Summary Data Component Survey, ACF.

Local Data: No local data available.



Figure 17. Homicide<sup>†</sup> Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	ınty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	adjusted rate
Total**	13	2.4	7	1.1	36	7.0	14	3.0	11	2.3	8	1.4	90	2.8	2.7
Gender															
Male	9	3.3	5	1.6	28	10.8	8	3.5	8	3.5	6	2.1	65	4.1	3.8
Female	<5	§	<5	§	8	3.2	6	2.6	<5	§	<5	§	25	1.6	1.5
Race/ Ethnicity															
White	7	2.2	6	1.6	6	4.4	<5	§	7	2.3	<5	§	32	2.0	1.8
Black	<5	§	<5	§	10	15.1	<5	§	<5	§	<5	§	18	10.8	9.7
Hispanic	<5	§	<5	§	16	7.4	8	3.2	<5	§	<5	§	33	3.4	3.2
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	9	11.0	8	10.5	<5	§	<5	§	26	5.2	
25-64	5	1.8	5	1.4	23	8.3	6	2.6	8	3.2	<5	§	52	3.1	
65+	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	9	2.4	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Homicide Death refers to (underlying cause of death) ICD-10 codes U01-U02, X85-Y09, Y87.1

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

### Sexual Assault

Sexual assault is defined as physical force to compel a person to engage in sexual acts against his/her will. It includes completed or attempted rape, sodomy, and other sexual assaults with bodily force. Sexual assault can occur between intimate partners or strangers. 12

There are many factors that increase the risk of sexual assault, although their presence does not mean that an individual will be a victim or a perpetrator of violence. Some of these factors include alcohol/drug use, childhood history of sexual and physical abuse, witnessing violence in the family. Some additional factors that may increase the risk of becoming a perpetrator are coercive sexual fantasies, hypermasculinity, and hostility towards women. Factors in a community can also promote sexual abuse, such as tolerance of sexual violence, weak sanctions against perpetrators, and lack of support for victims from law enforcement.<sup>12</sup>

Unfortunately, little is known about ways to prevent sexual violence. Ideally, prevention efforts should reduce risk factors and promote protective factors, and these should involve the individuals at risk, their relationships, families, and communities.<sup>12</sup>



### **HP 2010 Objectives**

# 15-34. Reduce the rate of physical assault by current or former intimate partners.

Target: 3.3 per 1,000 population.

**National Baseline:** 4.4 reports of being threatened or assaulted by current or former spouse, boyfriend or girlfriend per 100,000 population occurred in 1998, among persons aged 12 years and older.

National Data Source: National Crime Victimization

Survey (NCVS), DOJ, BJS.

Local Data: No local data available.

# 15-35. Reduce the annual rate of rape or attempted rape.

Target: 0.8 per 1,000 population.

**National Baseline:** 0.9 reports of being raped or a victim of an attempted rape per 100,000 population occurred in 1998, among persons aged 12 years and older.

National Data Source: National Crime Victimization

Survey (NCVS), DOJ, BJS.

Local Data: No local data available.

#### 15-36. Reduce sexual assault other than rape.

Target: 0.4 per 1,000 population.

**National Baseline:** 0.6 reports of being threatened or physically assaulted in a sexual way other than rape per 100,000 population occurred in 1998, among persons aged 12 years and older.

National Data Source: National Crime Victimization

Survey (NCVS), DOJ, BJS.

# Physical Assault and Adolescent Violence

Adolescent, or youth, violence refers to violence by adolescents to other young individuals. It can be physical, or emotional. Individuals may be victims, perpetrators, or witnesses. The violence can involve other criminal behaviors, such as robbery or sexual assault, and may result in severe injury or death. Many victims are injured as a result of bullying and fighting, and surveys have shown that 30% of middle and high school students report being bullied, and approximately 7% have taken some sort of weapon (knife, gun, club) to school.<sup>13</sup>

Adolescent violence is widespread in the U.S., and is the second leading cause of death among persons aged 10 to 24 years. Risk factors for engaging in youth violence are similar to those for other violent assaults: prior history of violence, violence at home, drug/alcohol use, and poverty. In addition, association with delinquent peers, gang membership, social rejection by peers poor grades and poor family functioning are also factors. <sup>13</sup>





### **HP 2010 Objectives**

#### 15-37. Reduce physical assaults.

Target: 13.6 per 1,000 population.

**National Baseline:** 31.1 reports of being physically assaulted per 100,000 population occurred in 1998, among persons aged 12 years and older.

National Data Source: National Crime Victimization

Survey (NCVS), DOJ, BJS.

**Local Data:** No local data available.

#### 15-38. Reduce physical fighting among adolescents.

Target: 32 percent.

**National Baseline:** 36 percent of students in grades 9 through 12 reported being in a physical fight at least 1 time during the past 12 months in 1999.

**National Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data:** In San Diego County, 31.9% of San Diego City high school students reported having been in a physical fight one or more times during the past 12 months.

Local Data Source: Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx">http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx</a> (accessed 8/2012).

# 15-39. Reduce weapon carrying by adolescents on school property.

Target: 4.9 percent.

**National Baseline:** 6.9 percent of students in grades 9 through 12 reported carrying a weapon on school property at least 1 day in the past 30 days in 1999.

**National Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data:** In San Diego County, according to the 2009 Youth Risk Behavior Survey, 12.9% of high school students in San Diego City schools reported carrying a weapon such as a gun, knife, or club on one or more of the past 30 days.

Local Data Source: Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx">http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx</a> (accessed 8/2012).

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#### SAN DIEGO COUNTY

Chapter 16

### Maternal, Infant, and Child Health

Healthy People 2010 Goal: Improve the health and well-being of women, infants, children, and families.

A key indicator of community health is the health of mothers and children. Rates of fetal, neonatal, infant, child and adolescent death are all measures that reflect the current health of a society and that of the next generation. Infant mortality is a worldwide indicator of a society's health status and quality of life.<sup>1</sup>

Several measures of mortality are used to define infant mortality. Perinatal mortality refers to deaths between 22 weeks gestation and one week old. Neonatal mortality refers to deaths within the first 28 days of life. Neonatal mortality are deaths that occur from birth through 27 days of age, and account for approximately two-thirds of all infant deaths.<sup>2</sup>

Post-neonatal deaths are those occurring after the first 28 days of life but before one year. It is during this period that Sudden Infant Death Syndrome (SIDS) occurs. SIDS is the sudden death of an infant





#### Prevention

- Receive early prenatal care The timing and quality of prenatal care is important to infant health and survival.
- Give birth at ideal maternal age The lowest infant death rates are for infants of mothers in their late twenties and early thirties.
- Use pacifiers and breastfeed reduces the risk of SIDS.<sup>4</sup>
- Create a safe sleeping environment;
   Infants should: 5
- be placed on their backs when resting, sleeping, or left alone.
- only be place on stomachs when strictly supervised.
- only be placed in cribs approved by the Consumer Product Safety Commission (CPSC).
- only be placed on a firm surface or mattress.
- nap away from any pillows, stuffed toys, bumper pads, comforters, quilts, or sheepskin.
- not sleep in the same bed as parents.

less than one year of age due to causes that cannot be determined.<sup>3</sup>

Four factors account for more than half of all infant deaths: birth defects, disorders relating to short gestation and low birth weight, sudden infant death syndrome (SIDS), and respiratory distress syndrome.<sup>1</sup> Preterm birth and low birth weight are leading causes of neonatal death and are associated with many long-term disabilities such as cerebral palsy, autism, mental retardation, and hearing impairment.

Indicators that reflect risks for infant death, such as low and very low birth rate births, have been on the rise in the U.S. for more than 10 years. Disparities are also seen in infant mortality rates by race/ethnicity, despite a decline overall in infant deaths.

# Infant Mortality in the United States and California

- The U.S. ranked 31<sup>th</sup> in the world for infant mortality in 2008.<sup>9</sup>
- In 2008, the U.S. infant mortality rate was 6.6 infants per 1,000 live births.
- In California, the infant mortality rate was 5.1 per 1,000 live births in 2008.





#### **Local Findings**

- In San Diego County, the infant mortality rate was 4.4 per 1,000 live births in 2009. ~Death, 2009
- Of all live births, 82% of mothers received care beginning in the first trimester of pregnancy in 2009.
   ~Birth 2009
- 6.7% of live births were low birth weight, and 1.1% were very low birth weight. ~Birth, 2009

# Fetal, Infant, Child, and Adolescent Deaths

In the United States, fetal and infant deaths are a serious public health concern. Nearly half of all infant deaths (46%) are due to congenital malformations, low birth weight, and sudden infant death syndrome. <sup>10</sup> Among all infant deaths, more than two-thirds occurred to preterm infants. <sup>6</sup> What's more, in 2008, multiples accounted for three percent of all live births but 15% of infant deaths in the U.S. <sup>2,10</sup> After the first month of life, SIDS becomes the leading cause of infant death, and accounts for approximately one-third of all deaths. <sup>3</sup>

Within the U.S., there are still great disparities in infant mortality by race/ethnicity. For example, African Americans and Native Americans/Alaska Natives have higher infant mortality rates than whites. African American women are also more likely than white women to have low birth weight babies.

Maternal age also is a risk factor for infant death; births to teenagers 16 years and under, or mothers aged 44 years and older, have the highest risk.

The deaths of children and adolescents are important public health issues as well. The leading causes of death at all ages after infancy are preventable injuries: motor vehicle crashes, drowning, fires and burns. Other causes of death among children 5-14 years, which are not easily preventable, include malignant neoplasms, and diseases of the heart.



### **HP 2010 Objectives**

#### 16-1. Reduce fetal and infant deaths.

#### **Target and National Baseline:**

	Reduction in rate of fetal and	1997 Baseline	2010 Target		
Objective	infant deaths as specified	Per 1,000 Live Births Plus Fetal Deaths			
16-1a.	Fetal deaths at 20 or more weeks of gestation	6.8	4.1		
16-1b.	Fetal and infant deaths during perinatal period (28 weeks of gestation to less than 7 days after birth)	7.3	4.4		
		Per 1,000 Live Births			
16-1c.	All infant deaths (within 1 year)	7.2 (1998)	4.5		
16-1d.	Neonatal deaths (less than 28 days after birth)	4.8 (1998)	2.9		
16-1e.	Postneonatal deaths (between 28 days and 1 year)	2.4 (1998)	1.2		
16-1f.	All birth defects	1.4 (1999)	0.7		
16-1g.	Congenital heart defects	0.46 (1999)	0.23		
16-1h.	Reduce deaths from sud- den infant death syn- drome (SIDS)	0.67 (1999)	0.23		

**National Data Source:** National Vital Statistics System-Mortality and Natality (NVSS-M and NVSS-N), CDC, NCHS.

**16-1a:** In San Diego County, according to Maternal, Child and Family Health Services Birth Statistical Master File, the rate of fetal deaths (20 or more weeks of gestation) was 3.9 per 1,000 live births in 2009.

**16-1b:** In San Diego County, according to the Maternal, Child and Family Health Services Birth Cohort File, the rate of fetal and infant deaths during the perinatal period (28 weeks of gestation to less than 7 days after birth) was 5.0 per 1,000 live births and fetal deaths in 2009.

**16-1c:** In San Diego County, according to Maternal, Child and Family Health Services Birth Statistical Master File, the rate of infant deaths (within one year) was 4.4 per 1,000 live births in 2009.

**16-1d:** In San Diego County, according to Maternal, Child and Family Health Services Birth Cohort File, the rate of neonatal deaths (less than 28 days after birth) was 3.2 per 1,000 live births in 2009.

**16-1e:** In San Diego County, according to Maternal, Child and Family Health Services Birth Cohort File, the rate of postneonatal deaths (between 28 days and 1 year) was 1.1 per 1,000 live births in 2009.

**16-1f:** In San Diego County, according to Maternal, Child and Family Health Services Birth Cohort File, the rate of all birth defects was 1.0 per 1,000 live births in 2009.

**16-1g:** In San Diego County, according to Maternal, Child and Family Health Services Birth Cohort File, the rate of congenital heart defects was 0.2 per 1,000 live births in 2009.

**16-1h:** In San Diego County, according to Maternal, Child and Family Health Services Birth Cohort File, the rate of deaths from sudden infant death syndrome (SIDS) was 0.6 per 1,000 live births in 2009.

**Local Data Source:** CA, DHS, Center for Health Statistics, Birth Cohort and Master Statistical Files, County of San Diego, Health & Human Services Agency, Maternal, Child and Family Health Services.

#### 16-2. Reduce the rate of child deaths.

#### **Target and National Baseline:**

Objective	Reduction in deaths of	1998 Baseline	2010 Target
	Reduction in deaths of children	Rate per	100,000
16-2a.	Children aged 1 to 4 years	34.1	20.0
16-2b.	Children aged 5 to 9 years	17.2	13.0

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

#### **Local Data:**

**16-2a:** In San Diego County, the rate of deaths for children aged 1 through 4 years was 16.3 per 100,000 in 2009.

**16-2b:** In San Diego County, the rate of deaths for children aged 5 through 9 years was 11.9 per 100,000 in 2009.

**Local Data Sources:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.



# 16-3. Reduce deaths of adolescents and young adults.

#### **Target and National Baseline:**

	Reduction in Deaths of	1998 Baseline	2010 Target	
Objective	Adolescents and Young Adults	Rate per 100,000		
16-3a.	Adolescents aged 10 to 14 years	21.5	16.5	
16-3b.	Adolescents aged 15 to 19 years	69.5	38.0	
16-3c.	Young adults aged 20 to 24 years	92.7	41.5	

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

#### **Local Data:**

**16-3a:** In San Diego County, the rate of death for children aged 10 through 14 years was 13.4 per 100,000 in 2009.

**16-3b:** In San Diego County, the rate of death for children aged 15 through 19 years was 30.4 per 100,000 in 2009.

**16-3c:** In San Diego County, the rate of death for young adults aged 20 through 24 years was 58.0 per 100,000 in 2009.

**Local Data Sources:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.



# Maternal Deaths and Illnesses

Many maternal deaths arise from preventable causes. Ectopic pregnancy is a pregnancy that develops outside a woman's uterus because the fertilized egg does not implant itself normally in the uterus. Ectopic pregnancy is a leading cause of illness and disability among pregnant women. Pregnancy-induced hypertension, embolism, and infections are also causes of maternal illness and death. Rates of ectopic pregnancy are higher among women 35-44 years than women 15-24 years. 1

Other causes of maternal death include hemorrhage, pregnancy-induced hypertension, embolism, infection, and other complications of pregnancy. Pregnancy and delivery can lead to serious health problems for women, both physical and mental, and should be addressed as a public health concern.



### **HP 2010 Objectives**

16-4. Reduce maternal deaths.

**Target:** 4.3 maternal deaths per 100,000 live births.

**National Baseline:** 9.9 maternal deaths per 100,000 live births occurred in 1999.

**National Data Source:** National Vital Statistics System-Mortality and Natality (NVSS-M and NVSS-N), CDC, NCHS.

Local Data: No local data available.

16-5a. Reduce maternal complications during hospitalized labor and delivery.

**Target:** 24.0 maternal complications per 100 deliveries.

**National Baseline:** 31.2 maternal complications per 100 deliveries occurred in 1998.

**National Data Source:** National Hospital Discharge Survey, CDC, NCHS.

**Local Data:** In San Diego County, the rate of maternal complications during hospitalized labor and delivery was 21.2 per 100 deliveries in 2005.

Note: 2009 data not available.

**Local Data Sources:** Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 9/2008.

16-5b, 16-5c: These objectives were deleted by the Federal government at midcourse review.

### Prenatal Care

The timing and quality of prenatal care received by a pregnant mother is important to the infant's health and survival. Good prenatal care includes risk assessment, treatment of medical problems to reduce or eliminate risk, and health education. Each of these can reduce the likelihood and impact of perinatal illness, disability or death. Helping women to quit or reduce alcohol and tobacco use is also beneficial to a healthy pregnancy outcome.

Certain groups such as pregnant women less than 16 years old, Native Americans/Alaska Natives, African Americans and Hispanics are less likely to receive adequate prenatal care. 1



#### **HP 2010 Objectives**

16-6. Increase the proportion of pregnant women who receive early and adequate prenatal care.

#### **Target and National Baseline:**

Objective	Increase in percent of live births where mother re-	1998 Baseline	2010 Target
	ceived prenatal care as specified	Percent of Live Births	
16-6a.	Care beginning in first tri- mester of pregnancy	83	90
16-6b.	Early and adequate prena- tal care	74	90

**National Data Source:** National Vital Statistics System-Natality (NVSS-N), CDC, NCHS.

#### **Local Data:**

**16-6a:** In San Diego County, according to Maternal Child and Family Health Services, for 82% of live births, mothers had received care beginning in the first trimester of pregnancy in 2009.

16-6b: no local data available.

**Local Data Source:** CA, DHS, Center for Health Statistics, Birth Cohort and Master Statistical Files, County of San Diego, Health & Human Services Agency, Maternal, Child and Family Health Services.

16-7. Increase the proportion of pregnant women who attend a series of prepared childbirth classes.

Target: 77 percent.

**National Baseline:** 66 percent of mothers of children under 3 years of age had never attended childbirth classes in 2000.

**National Data Source:** National Survey of Early Childhood Health (NSECH), CDC, NCHS.

### **O**bstetrical Care

Obstetrical care refers to health care pertinent to giving birth. For example, very low birth weight infants have lower death rates when they are delivered at level III hospitals that are best equipped to care for these neonates. <sup>1</sup> Reducing the need for cesarean births is an important issue which may be achieved through appropriate, high quality obstetrical care. <sup>1</sup>

### **HP 2010 Objectives**

16-8. Increase the proportion of very low birth weight (VLBW) infants born at level III hospitals or subspecialty perinatal centers.

Target: 90 percent.

**National Baseline:** 73 percent of VLBW infants were born at level III hospitals or subspecialty perinatal centers in 1996–97.

National Data Source: Title V Reporting System,

HRSA, MCHB.

Local Data: No local data available.

16-9. Reduce Cesarean births among low-risk (full term, singleton, vertex presentation) women.

**Target and National Baseline:** 

i iniactiva	Reduction in Cesarean	1998 Baseline	2010 Target		
	Births	Percent of Live Births			
16-9a.	No prior cesarean birth	18	15		
16-9b.	Prior cesarean birth	72	63		

National Data Source: National Vital Statistics

System-Natality (NVSS-N), CDC, NCHS.





### **Risk Factors**

There are a variety of risk factors for poor maternal and infant health. These include:

- Race/ethnicity In 2009, non-Hispanic African Americans had approximately twice the infant mortality rate as non-Hispanic Caucasians.<sup>10</sup> Also, African-American babies are more than two times, and American-Indian/Alaska Native babies are nearly three times as likely to die of SIDS as Caucasian babies.<sup>3</sup>
- Genetics/family history
- Maternal age The highest death rates are for infants of teen-aged mothers (10.3) and mothers aged 40 years and over (7.8).<sup>2</sup>
- Congenital abnormalities (birth defects) Birth defects account for 20% of all infant deaths in the U.S.; about one of every 33 babies born in the U.S. has a birth defect.<sup>7</sup>
- Low birthweight Birthweight and gestation are the two most important predictors of an infant's health and survival.<sup>2</sup> Low birthweight is a factor in 65% of infant deaths.<sup>8</sup>
- Preterm birth 67.2% of all infant deaths in the United States in 2008 were among the 12.3% of infants born preterm.<sup>11</sup>
- Poverty/low income
- Lack of appropriate prenatal care
- Poor nutrition
- Limited maternal education
- Complications of pregnancy Maternal complications of pregnancy, or complications of placenta, cord and membranes accounted for 6.3% of infant deaths, in 2008.
- Factors relating to sleep environment and SIDS: placement in the prone position, soft surface, pillow use, face and/or head covered with bedding, bed sharing.

### **HP 2010 Objectives**

16-10. Reduce low birth weight (LBW) and very low birth weight (VLBW).

#### **Target and National Baseline:**

Objective	Reduction in Low and Very	1998 Baseline	2010 Target	
	Low Birth Weight	Percent of Live Births		
16-10a.	Low birth weight (LBW)	7.6	5.0	
16-10b.	Very low birth weight (VLBW)	1.4	0.9	

**National Data Source:** National Vital Statistics System-Natality (NVSS-N), CDC, NCHS

#### **Local Data:**

**16-10a:** In San Diego County, according to Maternal, Child and Family Health Birth Statistical Master Files, 6.7% of all live births were low birth weight in 2009.

**16-10b:** In San Diego County, according to Maternal, Child and Family Health Birth Statistical Master Files, 1.1% of all live births were very-low birth weight in 2009.

Local Data Source: CA, DHS, Center for Health Statistics, Birth Statistical Master Files, County of San Diego, Health & Human Services Agency Maternal, Child and Family Health Services. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

#### 16-11. Reduce preterm births.

#### **Target and National Baseline:**

Objective	Reduction in Preterm	1998 Baseline	2010 Target		
Objective	Births	Percent			
16-11a.	Total preterm births	11.6	7.6		
16-11b.	Live births at 32 to 36 weeks of gestation	9.6	6.4		
16-11c.	Live births at less than 32 weeks of gestation	2.0	1.1		

**National Data Source:** National Vital Statistics System-Natality (NVSS-N), CDC, NCHS.

#### Local Data:

**16-11a:** In San Diego County, according to Maternal, Child, and Family Health Services Birth Statistical Master Files, 9.9% of live births were preterm in 2009.

**16-11b:** In San Diego County, according to Maternal, Child, and Family Health Services Birth Statistical Master Files, 8.4% of live births were born or delivered at 32 to 36 weeks of gestation in 2009.

**16-11c:** In San Diego County, according to Maternal, Child, and Family Health Services Birth Statistical Master Files, 1.5% of live births were born or delivered at less than 32 weeks of gestation in 2009.

Local Data Source: CA, DHS, Center for Health Statistics, Birth Statistical Master Files, County of San Diego, Health & Human Services Agency Maternal, Child and Family Health Services. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

# 16-12. (Not Developed) Increase the proportion of mothers who achieve a recommended weight gain during their pregnancies.

**Potential National Data Source**: 2003 revision of the U.S. Standard Certificate of Live Birth from the National Vital Statistics System - Natality (NVSS-N), CDC, NCHS.

Local Data: No local data available.

# 16-13. Increase the percentage of healthy full-term infants who are put down to sleep on their backs.

Target: 70 percent.

**National Baseline:** 36 percent of healthy full-term infants were put down to sleep on their backs in 1996.

National Data Source: National Infant Sleep Posi-

tion Study, NIH, NICHD.



# Developmental Disabilities and Neural Tube Defects

Developmental disabilities are a diverse group of (usually severe) chronic conditions that are due to mental and/or physical impairments. Developmental disabilities begin anytime between birth and up to a person's early twenties, and are usually lifelong. Birth defects are abnormalities of structure, function or metabolism that are present at birth.<sup>1</sup>

Some developmental disabilities and birth defects can be minimized or eliminated. Neural tube defects can be prevented through proper maternal nutrition, and disabilities related to preterm birth or low birthweight can also be prevented by addressing maternal health and prenatal care. Other defects such as heart problems can be reduced or eliminated with access to quality medical services.<sup>1</sup>



### **HP 2010 Objectives**

### 16-14. Reduce the occurrence of developmental disabilities.

#### **Target and National Baseline:**

Objective	Reduction in Developmen-	1991-94 Baseline	2010 Target	
	tal Disabilities in Children	Rate per 10,000		
16-14a.	Mental retardation	124.9*	118.7	
16-14b.	Cerebral palsy	31.8 <sup>†</sup>	30.2	
		Mediar mor		
16-14c.	Reduce the age at earliest identification of Autism Spectrum Disorder	69 (1996) <sup>‡</sup>	66	

\*Children aged 8 years in metropolitan Atlanta, GA, having an IQ of 70 or less.

†Children aged 8 years in metropolitan Atlanta, GA.

<sup>‡</sup>Children in metropolitan Atlanta, GA.

**National Data Source:** Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP), CDC, NCBDDD.

# 16-15. Reduce the occurrence of spina bifida and other neural tube defects (NTDs).

Target: 3 new cases per 10,000 live births.

National Baseline: 6 new cases of spina bifida or

another NTD per 10,000 live births

occurred in 1996.

National Data Source: National Birth Defects Pre-

vention Network (NBDPN), CDC, NCBDDD.

Local Data: No local data available.

# 16-16. Increase the proportion of pregnancies begun with an optimum folic acid level.

#### **Target and National Baseline:**

Objective	Increase in Pregnancies Begun With Optimum Folic	1991-94 Baseline	2010 Target			
Objective	Acid Level	Perd	cent			
16-16a.	Consumption of at least 400 µg of folic acid each day from fortified foods or dietary supplements by nonpregnant women aged 15 to 44 years	21	80			
		Number				
16-16b.	Median red blood cell RBC folate level among non- pregnant women aged 15 to 44 years	158 ng/ml	220 ng/ml			

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.



# Prenatal Substance Exposure

Alcohol, tobacco products and illicit drug use during pregnancy are major risk factors for many poor infant outcomes. The combined health care expenses from these risks are in the billions of dollars annually.

Alcohol use plays a role in fetal death, low birth weight and growth abnormalities, mental retardation and fetal alcohol syndrome. Alcohol use during pregnancy has risen since the 1990s and is a major public health concern. Secondhand smoke exposure of the fetus from maternal smoking is linked to low birthweight, preterm birth, SIDS and respiratory issues of neonates.<sup>1</sup>



### **HP 2010 Objectives**

# 16-17. Increase abstinence from alcohol, cigarettes, and illicit drugs among pregnant women.

#### **Target and National Baseline:**

Objective	Increase in Reported Absti- nence in Past Month From	Baseline (year)	2010 Target		
Objective	Substances by Pregnant Women*	Percent			
16-17a.	Alcohol	90 (2002-03)	95		
16-17b.	Binge drinking	96 (2002-03)	100		
16-17c.	Cigarette smoking <sup>†</sup>	87 (1998)	99		
16-17d.	Illicit drugs	96 (2002-03)	100		

<sup>\*</sup>Pregnant women aged 15 to 44 years.

National Data Sources: National Survey on Drug Use and Health (NSDUH), SAMSHA; National Vital Statistics System - Natality (NVSS\_N), CDC, NCHS.

Local Data: No local data available.

# 16-18. Reduce the occurrence of fetal alcohol syndrome (FAS).

Target: 0.1 cases per 1,000 live births.

**National Baseline:** 0.4 cases of fetal alcohol syndrome per 1,000 live births were reported during 1995-97 in selected states.

National Data Source: Fetal Alcohol Syndrome Sur-

veillance Network (FASSNet), CDC, NCBDDD.

<sup>&</sup>lt;sup>†</sup>Smoking during pregnancy for all women giving birth in 1998 in 46 States, the District of Columbia, and New York City.

# Breastfeeding, Newborn Screening, and Service Systems

Breastfeeding contributes to good infant health by offering complete nutrition and substantial immune system protection. Breastfeeding rates have increased, although the prevalence of breastfeeding after 5-6 months has dropped significantly. African American women and Hispanic women have lower rates of breastfeeding than white women. <sup>1</sup>

Early screening can be critical to overcoming problems that can lead to early death or severe long -term health problems in children. For example, half of the cases of spina bifida, a neural tube defect, could be prevented by prenatal supplement of folic acid. Approximately 12% of children under 18 years have some sort of disability, the most common being asthma and mental retardation. <sup>1</sup>



All States have multiple screening programs for newborns, including phenylketonuria (PKU), and hypothyroidism. Most also screen for sickle cell disease. These conditions can be treated post-delivery. Special nutrition can prevent mental retardation in children born with PKU, and thyroid supplements can prevent mental retardation in children with hypothyroidism. These and other counseling, prenatal care, and early childhood health programs can greatly improve the likelihood of a good pregnancy outcome and better child health.<sup>1</sup>

### **HP 2010 Objectives**

16-19. Increase the proportion of mothers who breastfeed their babies.

#### **Target and National Baseline:**

Objective	Increase in Mothers Who	2000 Baseline	2010 Target		
	Breastfeed	Percent			
16-19a.	Ever	71	75		
16-19b.	At 6 months	34	50		
16-19c.	At 1 year	16	25		
16-19d.	Exclusively through 3 months	30 (2003)	40		
16-19e.	Exclusively through 6 months	10 (2003)	17		

National Data Source: National Immunization

Survey (NIS), CDC, NCIRD and NCHS.

Local Data: No local data available.

## 16-20. Ensure appropriate newborn bloodspot screening and follow up testing.

16-20a. (Not Developed) Ensure that all newborns are screened at birth for conditions mandated by their State-sponsored newborn screening programs by matching the number screened by the State to birth certificate information.

16-20b. (Not Developed) Ensure that follow up testing for screened positives is performed within an appropriate time period by monitoring the period from time of birth to initial diagnosis.

## 16-20c. This objective was deleted by the Federal government at midcourse review.

# 16-21. Reduce hospitalization for sickle cell disease among children aged 9 years and under.

**Target:** 182.2 per 100,000.

**National Baseline:** 227.8 per 100,000 was the rate of hospital discharges for sickle cell disease among Black or African American children aged 9 years and under during 1995-99.

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** In San Diego County, Black or African American children ages 0 through 9 years were hospitalized with any diagnosis of sickle cell disease at a rate of 80.3 per 100,000 population in 2009.

Local Data Sources: Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

# 16-22. Increase the proportion of children with special health care needs who have access to a medical home.

Target: 100 percent.

**National Baseline:** 53 percent of children under 18 years of age with special health care needs were receiving care in medical homes in 2001.

**National Data Source:** National Survey of Children with Special Health Care Needs (NSHCN), CDC, NCHS.

Local Data: No local data available.

# 16-23. Increase the proportion of children with special health care needs who receive their care in family-centered, comprehensive and coordinated systems.

Target: 100 percent.

**National Baseline:** 35 percent of children under 18 years of age with special health care needs received their care in family-centered, comprehensive, and coordinated systems in 2001.

**National Data Source:** National Survey of Children with Special Health Care Needs (NSHCN), CDC, NCHS.



### **HP 2010 Objectives**

- 1 U.S. Department of Health and Human Services. "Maternal, Infant, and Child Health", in *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000. <a href="http://www.healthypeople.gov/2010/Document/pdf/">http://www.healthypeople.gov/2010/Document/pdf/</a> Volume2/16MICH.pdf, (Accessed August 21, 2012).
- 2 Matthew TJ, MacDorman MF. Infant Mortality Statistics from the 2005 Period Linked Birth/Infant Death Data Set. National Vital Statistics Report; vol 57 no 2. Hyattsville, MD: National Center for Health Statistics, 2008.
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- 7 Centers for Disease Control and Prevention. Birth Defects. http://www.cdc.gov/ncbddd/birthdefects/index.html, August 2012, (Accessed September 10, 2012).
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- 9 Heisler EJ. Congressional Research Service. The U.S. infant mortality rate: International comparisons, underlying factors, and federal programs. April 4, 2012. <a href="http://www.fas.org/sgp/crs/misc/R41378.pdf">http://www.fas.org/sgp/crs/misc/R41378.pdf</a>, (Accessed September 11, 2012).
- 10 Matthew TJ, MacDorman MF. Infant Mortality Statistics from the 2008 Period Linked Birth/Infant Death Data Set. National Vital Statistics Report; vol 60 no 5. Hyattsville, MD: National Center for Health Statistics. <a href="http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\_05.pdf">http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\_05.pdf</a>, (Accessed September 11, 2012).
- 11 Matthew TJ, MacDorman MF. Infant Mortality Statistics from the 2008 Period Linked Birth/Infant Death Data Set. National Vital Statistics Report; vol 60 no 5. Hyattsville, MD: National Center for Health Statistics, 2012.

#### SAN DIEGO COUNTY

Chapter 17

# Medical Product Safety

Healthy People 2010 Goal: Ensure the safe and effective use of medical products.

Medical products such as medications, biological products and devices are critical to many individuals' health. However, many of these products also have some risks to their use. The decision to use a medication, for example, balances its benefit in curing or managing a disease with any risk of short or long term use. For instance, blood products are widely used everywhere in the world, but must be closely monitored to avoid contamination of blood supplies with pathogens or other agents that can cause harm.<sup>1</sup>

In order to be approved, manufacturers must conduct extensive safety and efficacy studies, and submit data to the Food and Drug Administration (FDA) for approval. After approval of a new device or medication, it's long-term safety continues to be monitored by the FDA, which requires that medication errors, problems and serious adverse events be reported to the Medical Products Reporting and Safety Information Program. Effective management of medical product risk involves oversight of several types of errors: product defects, side effects, errors and other unknown issues.<sup>1</sup>

Key to monitoring risk is the availability of information for physicians, patients, and other people involved in the health care system. Information technology that is used to monitor the use, benefits, and

adverse outcomes are critical, as is the availability of information that is accurate, clear, and in a form that can be understood by patients. Determining acceptable levels of risk is necessary from a larger perspective, and should include community and social values in addition to the technical expertise of professionals.<sup>1</sup>

Certain patients are more vulnerable to adverse health outcomes. The elderly are particularly vulnerable because they often take many medications, which may interact to cause illness or injury. Individuals who are illiterate and unable to read important information about the medical devices they use are



### **HP 2010 Objectives**

17-1a. Increase the proportion of health care organizations that are monitoring and analyzing adverse events associated with medical therapies within their systems.

Target: 90 percent.

**National Baseline:** 82 percent of general and children's medical surgical hospitals tracked and trended adverse drug reactions in 1998.

**National Data Source:** National Survey of Pharmacy Practice in Acute Care Settings, American Society of Health Systems Pharmacists.

Local Data: No local data available.

17-1b. Objective deleted at midcourse review by the Federal government.

# 17-2. Increase the proportion of health care providers and organizations that are using information technology.

#### **Target and National Baseline:**

Objective	Increase the percent of specified providers using	Baseline (year)	2010 Target			
	the specified technology	Percent				
	Electronic medical record	S				
17-2a.	Health care providers in health care organizations using	12 (2000)	18			
17-2b.	Pharmacists in managed care and integrated health systems	31 (1999)	46			
	Computerized prescriber	order entry	1			
17-2c.	General and children's hospitals	4 (2001)	6			
17-2d.	Urban acute care facilities	5 (2003)	7			

National Data Sources: Annual Health Care Information and Management Systems Society (HIMSS) Leadership Survey; Healthcare Information and Management Society. National Survey of Ambulatory Care Responsibilities of Pharmacists in Managed Care and Integrated

Health Systems, American Society of Health Systems Pharmacists (ASHP). National Survey of Pharmacy Practice in Hospital Settings, American Society of Health Systems Pharmacists (ASHP). The Leapfrog Group Hospital Patient Safety Survey.

Local Data: No local data available.

### 17-3. Objective deleted at midcourse review by the Federal government.

17-4. Increase the proportion of patients receiving information that meets guidelines for usefulness when their new prescriptions are dispensed.

Target: 95 percent.

**National Baseline**: 52 percent of total possible points were "quality" points given to information sheets accompanying dispensed prescription drugs as evaluated in 2001.

**National Data Source**: Evaluation of written prescription information provided in community pharmacies, Food and Drug Administration (FDA).



17-5. Increase the proportion of patients who receive verbal counseling from prescribers and pharmacists on the appropriate use and potential risks of medications.

#### **Target and National Baseline:**

Objective	Increase percent of per- sons aged 18 years and older who received a new	1998 Baseline	2010 Target	
	prescription and receiving oral counseling from:	Percent		
17-5a.	Prescribers	24	95	
17-5b.	Pharmacists	14	95	

**National Data Source:** National Survey of Prescription Medicine Information Received by Consumers (FDA).

Local Data: No local data available.

17-6. Increase the proportion of persons who donate blood, and in so doing ensure an adequate supply of safe blood.

Target: 8 percent (age-adjusted).

**National Baseline:** 6 percent of the total population donated blood in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.



#### References

1 U.S. Department of Health and Human Services. "Medical Product Safety" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="http://www.healthypeople.gov/2010/Document/pdf/Volume2/17Medical.pdf">http://www.healthypeople.gov/2010/Document/pdf/Volume2/17Medical.pdf</a>, (Accessed August 21, 2012).

#### SAN DIEGO COUNTY

Chapter 18

### Mental Health & Mental Disorders

Healthy People 2010 Goal: Improve mental health and ensure access to appropriate, quality mental health services.

Mental health refers to the ability to successfully perform mental functions, which include adapting to change and coping with adversity throughout life. Mental health is vital to self-esteem, well-being, and in having successful relationships with individuals, family and the community.<sup>1</sup>

Mental disorders are characterized by changes to thinking, moods, and behaviors that cause distress or inability to function normally; some of the more common disorders are depression, schizophrenia, anxiety, psychosis, and dementia.

Mental illness is often under recognized despite being widespread. The prevalence of all mental disorders is similar to that of heart disease and cancer.<sup>2</sup> Mental illness occurs at all ages, and affects individuals without regard to gender, or race/ ethnicity. It is also often associated with substance abuse.

Up to 20% of children aged 9 through 17 years have a diagnosable mental illness in a given year. When left untreated, mental illness in children and adolescents may lead to failure in school, drug and alcohol use, violence, and suicide. Among older adults aged 65 years and older, up to 25% suffer from depression, anxiety, dementia and substance abuse. Alzheimer's affects up to 15% of adults over 60 years, and the prevalence increases with every 5 years of age. 3

Overall, there is little disparity in mental illness. However, particular disorders do show some differences by gender, age, and race/ethnicity. Racial/ethnic disparities are problematic because mental illness is often viewed very differently by various cultural groups in the population.

#### Disparities in Mental Illness4

- The rate of major depression is twice as high among women as men. Women of low SES, low education, unemployment and on public assistance experience more depression than women in the general population.
- Anxiety, panic and phobias are 2-3 times more common in women than men.
- Individuals who have been sexually and/or physically abused are more likely to attempt suicide, regardless of gender.
- Women attempt suicide more often than men, but men are more likely to complete suicide. This disparity increases with age. At least 90% of successful suicides have a history of a mental or substance abuse problem.
- Schizophrenia is more common in young men than in the general population
- Eating disorders are more common among women.
- One out of four homeless persons is mentally ill.

# Mental Health Status Improvement

Suicide is a leading cause of death in the United States, but highly preventable. While most people with mental disorders do not commit suicide, at least 90% of people who commit suicide have a mental disorder. Thus, prevention should focus on the risk factors for suicide, which include prior suicide attempt, stressful life events, and access to lethal methods.

Both wide-spread and targeted prevention efforts may help large segments of the population suffering from mental disorders. Strategies to manage stress and to acquire good coping skills can help individuals with a broad spectrum of illnesses. In addition, recognizing mental illness as a disease that can be managed or cured can help remove the stigma of mental illness and improve the chances that individuals will seek and receive appropriate medical and social assistance.



### **HP 2010 Objectives**

#### 18-1. Reduce the suicide rate.

**Target**: 4.9 suicides per 100,000 population (ageadjusted).

**National Baseline:** 10.5 suicides per 100,000 population occurred in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

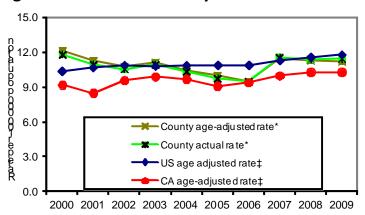
**Local Data:** In San Diego County, the age-adjusted suicide death rate was 11.2 per 100,000 residents in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2010.

Detailed Local Data: The County age-adjusted suicide rate has remained relatively stable since 2007. In 2009, the San Diego County suicide rate was slightly below the age-adjusted rates for the U.S. but above the age-adjusted rate for California (Figure 1). Regional level data is available by gender, race/ethnicity and age (Figure 2).



Figure 1. Suicide Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010.

8/8/2012: http://wonder.cdc.gov/cmf-icd10.html.



Figure 2. Suicide<sup>†</sup> Among San Diego Residents by Region of Residence, 2009

		orth estal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	inty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	56	10.4	76	12.2	64	12.5	37	8.0	70	14.9	62	10.7	365	11.5	11.2
Gender															
Male	43	15.5	56	18.1	50	19.2	29	12.7	41	17.8	49	17.3	268	16.9	17.0
Female	13	5.0	20	6.4	14	5.5	8	3.4	29	12.0	13	4.4	97	6.1	5.8
Race/ Ethnicity															
White	48	15.2	58	15.0	48	35.0	17	15.0	53	17.7	57	17.1	281	17.7	15.6
Black	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	11	6.6	6.4
Hispanic	5	3.3	8	9.9	7	3.2	11	4.4	9	8.8	<5	§	42	4.4	4.9
API‡	<5	§	8	7.5	6	8.4	6	9.7	<5	§	<5	§	27	8.0	7.6
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	8	8.6	6	6.7	5	6.1	5	6.6	9	12.8	<5	§	36	7.2	
25-64	39	14.3	55	15.6	50	18.0	23	10.0	51	20.4	45	15.1	263	15.6	
65+	8	13.1	14	17.3	9	19.8	9	18.6	10	17.3	13	17.4	63	17.1	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>‡</sup> Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Suicide refers to (underlying cause of death) ICD-10 codes U03, X60-X84, Y87.0.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

### 18-2. Reduce the rate of suicide attempts by adolescents.

**Target:** 12-month average of 1.0 percent.

**National Baseline:** 12-month average of 2.6 percent of adolescents in grades 9 through 12 attempted suicide in 1999.

**National Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data:** According to the 2009 Youth Risk Behavior Survey, 1.6% of City of San Diego high school students reported one or more actual suicide attempts that resulted in an injury, poisoning, or an overdose that had to be treated by a doctor or nurse during the past 12 months.

**Local Data Source:** Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/YouthOnline/">http://apps.nccd.cdc.gov/YouthOnline/</a> App/Default.aspx (accessed 8/2012).



# 18-3. Increase the proportion of homeless adults with mental health problems who receive mental health services.

Target: 30 percent.

National Baseline: 27 percent of homeless adults

aged 18 years and older had SMI in 2000.

National Data Source: Projects for Assistance in Transition from Homelessness (PATH) Annual Appli-

cation, SAMHSA, CMHS.

Local Data: No local data available.

# 18-4. Increase the proportion of persons with serious mental illness (SMI) who are employed.

Target: 54 percent.

National Baseline: 52 percent of persons aged 18

years and older with SMI were

employed in 2002.

National Data Source: National Comorbidity Survey-

Replication (NCS-R), NIH, NIMH.

Local Data: No local data available.



# 18-5. Reduce the proportion of adolescents who engage in disordered eating behaviors in an attempt to control their weight.

Target: 16 percent.

**National Baseline:** 19 percent of adolescents in grades 9 through 12 had 1 or more disordered eating behaviors in 1999.

National Data Source: Youth Risk Behavior Surveil-

lance System (YRBSS), CDC, NCCDPHP.

### Treatment Expansion

Treatment expansion refers to increasing the number of people who receive screening and assessment for mental disorders as part of their regular primary health care. Treatment can alleviate mental illnesses such as depression, schizophrenia, and anxiety disorders. Since general medical care is often the initial point of contact for adults with mental disorders, primary care providers may be their only source of mental health services.<sup>1</sup>



Increasing the proportion of children receiving such care for mental disorders is extremely important so that their illness does not develop into a lifelong problem. Expanding services for children requires collaboration through families, social services, healthcare, mental health services, and schools. Also, because mental disorders in children and adolescents are often associated with criminal activity and substance abuse, the juvenile justice system is a critical gateway to mental health services for many young people.<sup>1</sup>

#### **HP 2010 Objectives**

18-6. Increase the proportions of primary care facilities that provide mental health treatment on site or paid by referral.

Target: 68 percent.

**National Baseline:** 62 percent of primary care facilities provided mental health treatment on site or paid by referral in 2000.

National Data Source: Uniform Data System (UDS), HRSA.

Local Data: No local data available.

18-7. Increase the proportion of children with mental health problems who receive treatment.

Target: 67 percent.

**National Baseline:** 60 percent of persons aged 4 to 17 years with mental health problems received one or more forms of treatment in 2001.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because San Diego County data reflect persons aged 12 to 17 years who received counseling and talked about talked about their emotions during their last physical exam. Healthy People data reflect persons aged 4 to 17 years with mental health problems who received one or more forms of treatment.

In San Diego County, according to the 2007 California Health Interview Survey, 18.5% of persons aged 12 to 17 years received counseling and talked about their emotions during their last physical exam.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2007 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

## 18-8. Increase the proportion of juvenile residential facilities that screen admissions for mental health problems.

Target: 55 percent.

**National Baseline:** 50 percent of facilities reporting in the JRFC were facilities for which all young persons were evaluated or appraised by a mental health professional at a location inside the facility in 2001.

**National Data Source:** Juveniles in Residential Facilities Census (JRFC), National Center for Juvenile Justice.

Local Data: No local data available.

### 18-9. Increase the proportion of adults with mental disorders who receive treatment.

#### **Target and National Baseline:**

	Increase in Adults With Mental Disorders Receiving	Baseline (year)	2010 Target
	Treatment	Perd	ent
11 X-9a	Adults aged 18 and older with serious mental illness	62 (2002)	68
	Adults aged 18 years and older with recognized depression	58 (2002)	64
18-9c.	Adults aged 18 years and older with schizophrenia	60 (1984)	75
	Adults aged 18 years and older with generalized anxiety disorder	60 (2002)	79

**National Data Sources:** Epidemiologic Catchment Area (ECA) Program, NIH, NIMH; National Comorbidity Survey-Replication (NCS-R), NIH, NIMH.

Local Data: No local data available.

18-10. Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders.

Target: 57 percent.

**National Baseline:** 51 percent of persons aged 18 years and older with co-occurring disorders received treatment for them in 2002.

National Data Source: National Co-morbidity Survey

-Replication (NCS-R), NIH, NIMH.

Local Data: No local data available.



# 18-11. Increase the proportion of counties served by community-based jail diversion programs and/or mental health courts for adults with mental health problems.

Target: 7.6 percent.

**National Baseline:** 6.9 percent of counties in the United States had a community-based diversion program for adults with mental health problems in 2004.

National Data Source: Mental Health Court Survey,

SAMHSA, CMHS.

### State Activities

State goals should include improving mental health services that are culturally appropriate within the population they serve and measure the satisfaction of those who receive mental health services. Additionally, the aging United States population will require expanded mental health screening and treatment services for the elderly.<sup>1</sup>



#### **HP 2010 Objectives**

18-12. Increase the number of States and the District of Columbia that track consumers' satisfaction with the mental health services they receive.

Target: 51 States and the District of Columbia.

**National Baseline:** 34 States tracked consumers' satisfaction with the mental health services they received in 2002.

National Data Source: Uniform Reporting System

(URS), SAMHSA.

Local Data: No local data available.

#### **HP 2010 Objectives**

18-13. (Not Developed) Increase the number of States, Territories, and the District of Columbia with an operational mental health plan that addresses cultural competence.

Potential National Data Source: State Mental Health Agency Profiling System, National Association of State Mental Health Program Directors, National Research Institute.

Local Data: No local data available.

18-14. Increase the number of States, Territories, and the District of Columbia with an operational mental health plan that addresses specialized mental health services for elderly persons.

Target: 51 States and the District of Columbia.

**National Baseline:** 18 States had an operational mental health plan that addressed mental health crisis interventions, ongoing screening, and treatment services for elderly persons in 2001.

**National Data Source:** State Mental Health Agency Profiling System, National Association of State Mental Health Program Directors, National Research Institute.

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#### SAN DIEGO COUNTY

Chapter 19

## Nutrition & Overweight

Healthy People 2010 Goal: Promote health and reduce chronic disease associated with poor diet and excessive weight.

Good nutrition is critical for the proper growth, development, and health for all individuals. Patterns of good nutrition should begin before birth, and last from infancy through lifetime. Poor diet and lack of nutrition has been shown to contribute to major chronic diseases including coronary heart disease, stroke, Type 2 diabetes and some cancers.<sup>1</sup>

There are many dietary components that contribute to a healthy diet. The 2000 Dietary Guidelines for Americans recommends using the Food Pyramid as a guide in making proper food choices. Nutrientrich foods such as whole grains, fruits and vegetables are important to a good diet. Choosing foods that are low in saturated fat and cholesterol, as well as low in sugar and salt is important. It is also critical to avoid consuming more calories than are used for metabolism and physical activity. Over consumption of calories, especially in the form of fats and sugars, are major components in the development of overweight and obesity.

Nationwide, there has been a dramatic increase in the number of individuals who are overweight or obese. When assessed using the body mass index (BMI), over 50% of U.S. adults are overweight or obese, having a BMI above 25.<sup>3</sup> These individuals are at increased risk for high blood pressure, heart disease, stroke, Type 2 diabetes, as well as osteoarthritis, sleep apnea, respiratory problems and some cancers. <sup>1</sup>

Improved nutrition, avoidance of excess consumption and regular physical activity are all keys to maintaining adequate nutrition and a healthy weight. Establishing a healthy lifestyle through healthful nutrition and physical activity should be learned and begin in childhood. Research has shown that the impact of nutrition education may be most effective when targeted at school-aged children.

#### **Essential Nutrition Topics for Children**

- Food Guide Pyramid
- · Benefits of healthful eating
- Making healthy food choices
- · Preparing healthy food
- Using food labels
- Eating a variety of foods
- Balancing food intake and physical activity
- · Accepting body size differences

Disparities exist in individuals by race/ethnicity, gender, age, and income. Obesity is more common among Hispanic, African American, Native American, and Pacific Islanders than among whites. This racial/ethnic disparity is particularly pronounced among women. Individuals who are poor or isolated may suffer from undernutrition due to limited access to safe, nutritious foods.

## Weight Status & Growth

Maintaining a healthy weight is important at all ages. Having a body mass index (BMI) that is too high or two low can contribute to significant health problems.

Overweight and obesity are a growing problem in the United States. People who are overweight and obese have a higher burden of illness and a lower life expectancy than people who are at a healthy weight. The potential benefits in reducing the number of overweight and obese individuals is of great public health importance.

Individuals who are too thin, with a BMI lower than 18.5, are also at risk of health problems such as osteoporosis. Women who are too thin are also at risk of infertility and menstrual problems. <sup>1</sup>

In addition to establishing long-term unhealthy lifestyle habits, children with a poor diet and inadequate nutrition are at risk of growth retardation. Growth retardation is an indicator of poor health and development, particularly among children under the age of 5 years. While some children are below the fifth percentile in height simply due to genetics, for others it is indicative of health problems.<sup>1</sup>



#### **HP 2010 Objectives**

## 19-1. Increase the proportion of adults who are at a healthy weight.

Target: 60 percent (age-adjusted).

National Baseline: 42 percent of adults aged 20 years and older were at a healthy weight (defined as a body mass index [BMI] equal to or greater than 18.5 and less than 25) in 1988–94 (age adjusted to the year 2000 standard population).

**National Data Source**: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

**Local Data**: San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the 2009 California Health Interview Survey, 41.6% of adults aged 20 years and older had a normal body mass index (BMI 18.5-24.99) based on their height and weight.

**Local Data Source**: UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 8/2012).

### 19-2. Reduce the proportion of adults who are obese.

Target: 15 percent (age-adjusted).

**National Baseline**: 23 percent of adults aged 20 years and older were identified as obese (defined as a BMI of 30 or more) in 1988–94 (age adjusted to the year 2000 standard population).

National Data Source: National Health & Nutrition Examination Survey (NHANES), CDC,NCHS.

**Local Data**: San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the 2009 California Health Interview Survey, 22.1% of adults aged 20 years and older had a high body mass index (BMI 30.0 or higher) based on their height and weight.

**Local Data Source**: UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 8/2012).

### 19-3. Reduce the proportion of children and adolescents who are overweight or obese.

#### **Target and National Baseline:**

Objective	Reduction in Overweight or Obese Children and Adoles- cents*	1988-94 Baseline	2010 Target
		Perc	ent
19-3a.	Children aged 6 to 11 years	11	5
19-3b.	Adolescents aged 12 to 19 years	11	5
19-3c.	Children and adolescents aged 6 to 19 years	11	5

<sup>\*</sup>Defined as at or above the gender- and age-specific 95th percentile of BMI based on the revised CDC Growth Charts for the United States.

**National Data Source**: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

**Local Data**: San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

**19-3a**: In San Diego County, according to the 2009 California Health Interview Survey, 11.5% of children aged 6 through 11 years, were obese or overweight based on their age and weight (not controlled for height).

**19-3b**: In San Diego County, according to the 2009 California Health Interview Survey, 17.1% of youth aged 12 through 19 years, were obese or overweight based on their age and weight (not controlled for height).

19-3c: No local data available.

**Local Data Source**: UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 8/2012).

### 19-4. Reduce growth retardation among low-income children under age 5 years.

Target: 4 percent.

**National Baseline**: 6 percent of low-income children under age 5 years were growth retarded in 1997.

**National Data Source**: Pediatric Nutrition Surveillance System (PedNSS), CDC, NCCDPHP.



# Food & Nutrient Consumption

Adequate consumption of nutrient and vitamindense foods are important for health and wellbeing. Dietary guidelines for U.S. residents recommend that individuals consume 3-5 servings a day of vegetables and fruits, and plenty of whole grain and fibrous foods. Dark leafy green vegetables and orange vegetables and fruits, along with peas and beans are particularly nutritious. Further, there is evidence that diets containing certain polyunsaturated fats, such as fish, lower the risks of coronary heart disease.

Decreased consumption of certain foods is equally important for good health. Substituting low fat and lean foods for saturated fats and sugary foods improves nutrition and fitness. Dietary guidelines recommend that fried foods should be restricted, as well as the consumption of red meat and salt to reduce heart disease and related problems. The guidelines also recommend adequate calcium intake to help prevent osteoporosis.<sup>4</sup>



#### **HP 2010 Objectives**

19-5. Increase the proportion of persons aged 2 years and older who consume at least two daily servings of fruit.

**Target:** 75 percent (age-adjusted).

**National Baseline:** 28 percent of persons aged 2 years and older consumed at least two daily servings of fruit in 1994–96 (age adjusted to the year 2000 standard population).

**National Data Source:** Continuing Survey of Food Intakes by Individuals (CSFII) (2-day average), USDA. ARS.

**Local Data:** In San Diego County, according to the 2009 California Health Interview Survey, 59.7% of persons aged 2 through 17 years consumed 2 or more servings of fruit on the previous day.

**Local Data Source:** Source: UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 8/2012).

19-6. Increase the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third of them being dark green or orange vegetables.

Target: 50 percent (age-adjusted).

National Baseline: 3 percent of persons aged 2 years and older consumed at least three daily servings of vegetables, with at least one-third of these servings being dark green or orange vegetables in 1994–96 (age adjusted to the year 2000 standard population).

**National Data Source:** Continuing Survey of Food Intakes by Individuals (CSFII) (2-day average), USDA, ARS.

Local Data: No local data available.

19-7. Increase the proportion of persons aged 2 years and older who consume at least six daily servings of grain products, with at least three being whole grains.

Target: 50 percent (age-adjusted).

National Baseline: 7 percent of persons aged 2 years and older consumed at least six daily servings of grain products, with at least three being whole grains in 1994–96 (age adjusted to the year 2000 standard population).

**National Data Source:** Continuing Survey of Food Intakes by Individuals (CSFII) (2-day average), USDA, ARS.

Local Data: No local data available.

19-8. Increase the proportion of persons aged 2 years and older who consume less than 10 percent of calories from saturated fat.

Target: 75 percent (age-adjusted).

**National Baseline:** 33 percent of persons aged 2 years and older consumed less than 10 percent of daily calories from saturated fat in 1994–96 (age adjusted to the year 2000 standard population).

**National Data Source:** Continuing Survey of Food Intakes by Individuals (CSFII) (2-day average), USDA, ARS.

**Local Data:** No local data available.

19-9. Increase the proportion of persons aged 2 years and older who consume no more than 30 percent of calories from total fat.

Target: 75 percent (age-adjusted).

**National Baseline:** 36 percent of persons aged 2 years and older consumed no more than 30 percent of daily calories from total fat in 1994–96 (age adjusted to the year 2000 standard population).

**National Data Source:** Continuing Survey of Food Intakes by Individuals (CSFII) (2-day average), USDA, ARS.

Local Data: No local data available.

## 19-10. Increase the proportion of persons aged 2 years and older who consume 2,400 mg or less of sodium daily.

**Target:** 65 percent (age-adjusted).

**National Baseline:** 21 percent of persons aged 2 years and older consumed 2,400 mg or less of sodium daily (from foods, dietary supplements, tap water, and salt use at the table) in 1988–94 (age adjusted to the year 2000 standard population).

National Data Source: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

## 19-11. Increase the proportion of persons aged 2 years and older who meet dietary recommendations for calcium.

Target: 74 percent (age-adjusted).

National Baseline: 45 percent of persons aged 2 years and older were at or above approximated mean calcium requirements (based on consideration of calcium from foods, dietary supplements, and antacids) in 1988–94 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

### Iron Deficiency & Anemia

When the body does not receive enough iron, several organs systems may not function properly. One consequence of iron deficiency is anemia, which occurs when the body lacks enough red blood cells. The most common symptom of anemia is extreme fatigue.



Women, more often than men, have iron deficiencies because of iron loss during menstruation. In pregnant women, iron deficiency is associated with preterm birth, low birth weight, and delays in development among infants and children. National data show that the majority of women aged 12-49 years do not receive adequate iron in their diet. Young children are also at risk of iron deficiency due to a poor diet.

#### **HP 2010 Objectives**

### 19-12. Reduce iron deficiency among young children and females of childbearing age.

#### **Target and National Baseline:**

Objective	Reduction in Iron Deficiency*	1988-94 Baseline	2010 Target
		Perc	ent
19-12a.	Children aged 1 to 2 years	9	5
19-12b.	Children aged 3 to 4 years	4	1
19-12c.	Nonpregnant females aged 12 to 49 years	11	7

\*Iron deficiency is defined as having abnormal results for two or more of the following tests: serum ferritin concentration, erythrocyte protoporphyrin, or transferrin saturation.

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

### 19-13. Reduce anemia among low-income pregnant females in their third trimester.

Target: 20 percent.

**National Baseline:** 29 percent of low-income pregnant females in their third trimester were anemic (defined as hemoglobin <11.0 g/dL) in 1996.

**National Data Source:** Pregnancy Nutrition Surveillance System (PNSS), CDC, NCCDPHP.

Local Data: No local data available.

### 19-14. (Not Developed) Reduce iron deficiency among pregnant females.

**Potential Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

# Schools, Worksite, & Nutrition Counseling

Health promotion efforts that help people make good dietary choices and promote physical activity are key to improving the overall health of all citizens.

Schools are a critical resource that should be used to promote good nutrition to children. They can do this by including healthy foods in lunch programs, providing nutrition education in the classroom, and offering a variety of physical fitness programs.



#### **HP 2010 Objectives**

19-15. Objective deleted at midcourse review by the Federal government.

19-16. Increase the proportion of worksites that offer nutrition or weight management classes or counseling.

Target: 84 percent.

**National Baseline:** 54 percent of worksites with 50 or more employees offered nutrition or weight management classes or counseling at the worksite or through their health plans in 1998–99.

**National Data Source:** National Worksite Health Promotion Survey (NWHPS), Association for Worksite Health Promotion (AWHP), and OPHS, ODPHP.

Local Data: No local data available.

19-17. Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition.

Target: 75 percent (age-adjusted).

**National Baseline:** 42 percent of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia included ordering or providing counseling or education on diet and nutrition in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS.

## Food Security

For good health, individuals need to have access to enough food, known as food security. These foods should be healthy and safe for consumption. The majority of people who suffer from food insecurity have inadequate household resources, and may include pregnant women, children, and the elderly. <sup>1</sup>

#### **HP 2010 Objectives**

### 19-18. Increase food security among U.S. households and in so doing reduce hunger.

Target: 94 percent.

**National Baseline:** 88 percent of all U.S. households were food secure in 1995.

**National Data Source:** Food Security Supplement to the Current Population Survey (CPS), U.S. Census Bureau.

**Local Data:** In San Diego County, according to the 2009 California Health Interview Survey, 64.9% of adults whose income was less than 200% of the Federal Poverty Level had the consistent ability to afford enough food (food security).

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 8/2012).



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#### SAN DIEGO COUNTY

Chapter 20

## Occupational Safety & Health

Healthy People 2010 Goal: Promote the health and safety of people at work through prevention and early intervention.

Workplace injuries and illnesses take a significant toll on the health of workers. In the United States, a worker is injured every 5 seconds, and disabled every 10 seconds. There were substantial decreases in injuries and illnesses during the 1980s and early 1990s. However, each day thousands of workers suffer from work-related illnesses, injuries and disabilities. <sup>1</sup>



A work-related injury or illness includes any that is suffered by a person engaged in work-related activities whether on or off the worksite. Injuries and illnesses caused at the worksite alone caused more than \$120 billion in lost wages, productivity, health care expenses and other costs in 1996.<sup>1</sup>

Public health, workplaces and individuals all have a role in occupational health. In addition to regulatory agencies who protect workers, worksites should invest in training, equipment, and workplace design that reduce the risk of injury, illness or death to their employees.

#### **HP 2010 Objectives**

## **20-1. Reduce deaths from work-related injuries.**Target and National Baseline:

	Reduction in Deaths From	1998	2010
		Baseline	Target
Objective Work-Related Injuries		Deaths pe Workers Ag and C	ed 16 Years
20-1a.	All industry	4.5	3.2
20-1b.	Mining	23.6	16.5
20-1c.	Construction	14.5	10.1
20-1d.	Transportation	11.8	8.3
12()-16	Agriculture, forestry, and fishing	23.3	16.3

**National Data Source:** Census of Fatal Occupational Injuries (CFOI), DOL, BLS.

**Local Data:** In San Diego County, the rate of work-related injury death was 4.3 per 100,000 workers.

**Local Data Source:** Bureau of Labor Statistics, Fatal occupational injuries by metropolitan area, 2009, <a href="http://www.bls.gov/iif/oshwc/cfoi/cfoi">http://www.bls.gov/iif/oshwc/cfoi/cfoi</a> msa 2009.pdf (accessed 9/20/2012); U.S. Census, American Community Survey Table S2301, (accessed 9/20/2012).

## 20-2. Reduce work-related injuries resulting in medical treatment, lost time from work, or restricted work activity.

#### **Target and National Baseline:**

	Reduction in Work-Related Injuries Resulting in Medi-	1998 Base- line (unless noted)	2010 Target
Objective	cal Treatment, Lost Time From Work, or Restricted Activity	Injuries Full-Time Aged 16 \ Old	Years and
20-2a.	All industry	6.2	4.3
20-2b.	Construction	8.7	6.1
20-2c.	Health services	7.9 (1997)	5.5
20-2d.	Agriculture, forestry, and fishing	7.6	5.3
20-2e.	Transportation	7.9 (1997)	5.5
20-2f.	Mining	4.7	3.3
20-2g.	Manufacturing	8.5	6.0
20-2h.	Adolescent workers	4.9	3.5

**National Data Sources:** Survey of Occupational Injuries and Illnesses (SOII), DOL, BLS; National Electronic Injury Surveillance System (NEISS), CPSC and NIOSH.

Local Data: No local data available.

## 20-3. Reduce the rate of injury and illness cases involving days away from work due to overexertion or repetitive motion.

Target: 338 injuries per 100,000 full-time workers.

**National Baseline:** 675 injuries per 100,000 fulltime workers due to overexertion or repetitive motion were reported in 1997.

National Data Source: Survey of Occupational Inju-

ries and Illnesses (SOII), DOL, BLS.

Local Data: No local data available.

#### 20-4. Reduce pneumoconiosis deaths.

Target: 1,900 deaths.

**National Baseline:** 2,928 pneumoconiosis deaths among persons aged 15 years and older occurred in 1997.

**National Data Source:** National Surveillance System for Pneumoconiosis Mortality (NSSPM), CDC, NIOSH.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data are based on multiple causes of death—underlying and contributing causes. Current San Diego County data are based on single underlying cause of death only and are an underestimate of the overall deaths related to pneumoconiosis.

In San Diego County, there were 6 pneumoconiosis deaths (underlying cause only) in 2009.

**Local Data Source:** Death Statistics Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB, 2011.

### 20-5. Reduce deaths from work-related homicides.

Target: 0.4 deaths per 100,000 workers.

**National Baseline:** 0.5 deaths per 100,000 workers aged 16 years and older were work-related homicides in 1998.

**National Data Source:** Census of Fatal Occupational Injuries (CFOI), DOL, BLS.

**Local Data:** In San Diego County, there were too few work-related homicides in 2009 to calculate a rate.

**Local Data Source:** County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000-2009 (accessed September 20, 2012).

#### 20-6. Reduce work-related assaults.

Target: 0.78 assaults per 100 workers.

**National Baseline:** 1.10 assaults per 100 workers aged 16 years and older were work-related during

1998.

National Data Source: National Crime Victimization

Survey (NCVS), DOJ, BJS.

Local Data: No local data available.

### 20-7. Reduce the proportion of adults who have elevated blood lead concentrations.

**Target:** 0 persons per 100,000 employed adults.

National Baseline: 12.1 100,000 employed persons aged 16 to 64 years had blood lead concentrations of 25  $\mu$ g/dL or greater in 1998 (25 States).

**National Data Source:** Adult Blood Lead Epidemiology and Surveillance Program (ABLES), CDC, NIOSH.

**Local Data:** In San Diego County, the rate of elevated blood lead levels was 0.8, per 100,000 working persons aged 16 or older, 1995-1999.

Note: 2009 data not available.

Local Data Source: Blood Lead Levels in California Workers, 1995-1999, Report of the California Occupational Blood Lead Registry, Occupational Lead Poisoning Prevention Program, Occupational Health Branch, CA DHS; SANDAG, Current Population Estimates, 9/27/2006. Prepared by County of San Diego, health & Human Services Agency, Community Health Statistics, 4/2009.

### 20-8. Reduce occupational skin diseases or disorders among full-time workers.

Target: 47 new cases per 100,000.

**National Baseline:** 67 new cases of occupational skin diseases or disorders per 100,000 full-time workers aged 16 years and older occurred in 1997.

National Data Source: Survey of Occupational Inju-

ries and Illnesses (SOII), DOL, BLS.

Local Data: No local data available.

20-9. Increase the proportion of worksites employing 50 or more persons that provide programs to prevent or reduce employee stress.

Target: 50 percent.

**National Baseline:** 37 percent of worksites with 50 or more employees provided worksite stress reduction programs in 1992.

**National Data Source:** National Worksite Health Promotion Survey (NWHPS), Association for Worksite Health Promotion and OPHS, ODPHP.

Local Data: No local data available.

## 20-10. Reduce occupational needlestick injuries among hospital-based health care workers.

**Target:** 269,000 annual needlestick exposures.

**National Baseline:** 384,000 occupational needlestick exposures to blood occurred among health care workers in 1998.

National Data Sources: National Surveillance System for Hospital Health Care Workers (NaSH), CDC, NCID and Exposure Prevention Information Network (EpiNet), International Health Care Worker Safety Center, University of Virginia.

Local Data: No local data available.

### 20-11. (Not Developed) Reduce new cases of work-related, noise-induced hearing loss.

**Potential Data Source:** Survey of Occupational Injuries and Illnesses (SOII), DOL, BLS.

#### Reference

1 U.S. Department of Health and Human Services. "Occupational Safety and Health" in Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="https://www.healthypeople.gov/2010/document/pdf/">http://www.healthypeople.gov/2010/document/pdf/</a>

<u>www.neaithypeopie.gov/2010/document/pdi/</u> <u>Volume2/200ccSH.pdf, (Accessed August 21, 2012).</u>

Chapter 21

## Oral Health

Healthy People 2010 Goal: Prevent and control oral and craniofacial diseases, conditions, and injuries and improve access to related services.

Oral health is important to the health of all individuals. People who have dental disease such as dental caries (cavities), periodontal or gum disease, and other oral problems suffer from pain and difficulties with eating, swallowing, and speaking. They may also suffer from poor self-esteem related to the appearance of their teeth, mouth and face.

While good oral hygiene is easy and inexpensive, poor oral health is very expensive to treat. Some untreated oral health issues can result in poorer standard of living, lost productivity, and may even be fatal. Cancers of the oral cavity and pharynx are examples of some of the most serious outcomes of poor oral health. However, annual oral cancer examinations are still uncommon among U.S. adults aged 40 years and older.

In children, dental caries are the most common chronic disease. Most dental caries in permanent teeth are found in children and adolescents rather than in adults. Practices that include dental sealants, better tooth brushing and other good oral hygiene practices, along with water fluoridation, are needed to decrease tooth decay in the younger population.

While water fluoridation and the use of fluoridecontaining toothpastes and rinses have dramatically dropped the overall rate of decay seen in permanent teeth, there are still disparities in oral health among certain groups. For example, among children and adolescents, groups with

## Risk Factors for Poor Oral Health Adults Children

- Tobacco use
- Poor oral hygiene
- Diabetes
- Stress
- Genetic factors
- Poor general health
- Poor nutrition
- Large family size
- Low SES
- Feeding infants sweetened drinks or formula at bedtime

poorer oral health include African Americans and Hispanics, when compared to White children. <sup>1</sup>

The third National Health and Nutrition Examination Survey (NHANES III) study published in 1986 showed that nearly all (85%) of adults have had dental caries and nearly one third (30%) had untreated tooth decay.<sup>3</sup> Some groups, such as the elderly and individuals with diabetes or HIV/AIDS, are at higher risk for dental disease or complete tooth loss.



#### **HP 2010 Objectives**

## 21-1. Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth.

#### **Target and National Baseline:**

Ohiective	with specified dental car-	1988-94 Baseline	2010 Target
	ies experience	Nun	nber
21-1a.	Primary teeth, children aged 2 to 4 years	18	11
21-1b.	Primary or permanent teeth, children aged 6 to 8 years	52	42
21-1c.	Permanent teeth, chil- dren aged 15	61	51

**National Data Sources:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

## 21-2. Reduce the proportion of children, adolescents, and adults with untreated dental decay.

#### **Target and National Baseline:**

Objective	Reduction in percent of children and adolescents with a clinical diagnosis of dental decay in at least	1988-1994 Baseline	2010 Target
	one tooth that has not been restored	Number	
21-2a.	Children aged 2 to 4 years	16	9
21-2b.	Children aged 6 to 8 years	29	21
21-2c.	Children aged 15	20	15
21-2d.	Adults aged 35-44 years	27	15

National Data Sources: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Oral Health Survey of Native Americans, 1999, IHS; California Oral Health Needs Assessment of Children, 1993–94, Dental Health Foundation; Hawai'i Children's Oral Health Assessment, 1999, State of Hawaii Department of Health. Oral Health Survey of Native Americans, 1999, IHS.

Local Data: No local data available.

# 21-3. Increase the proportion of adults who have never had a permanent tooth extracted because of dental caries or periodontal disease.

Target: 40 percent.

**National Baseline:** 30 percent of adults aged 35 to 44 years had never had a permanent tooth extracted because of dental caries or periodontal disease in 1988–94.

**National Data Sources:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

**Local Data**: San Diego County data are not directly comparable to Healthy People data. This is because San Diego County data reflect persons aged 18 years and older. Healthy People 2010 data reflect persons aged 35 to 44 years.

In San Diego County, according to the 2008 Behavioral Risk Factor Surveillance System (BRFSS), 58.5% of adults aged 18 years and older had no permanent tooth loss.

Note: 2009 data not available.

**Local Data Source:** Centers for Disease Control and Prevention, "2008 Behavioral Risk Factor Surveillance System (BRFSS)," <a href="http://www.cdc.gov/BRFSS/">http://www.cdc.gov/BRFSS/</a> (accessed 8/2012).

### 21-4. Reduce the proportion of older adults who have had all their natural teeth extracted.

Target: 22 percent.

**National Baseline:** 29 percent of adults aged 65 to 74 years had lost all their natural teeth in 1988-94.

National Data Sources: National Health Interview

Survey (NHIS), CDC, NCHS.

**Local Data**: San Diego County data are not directly comparable to Healthy People data. This is because San Diego County data reflect persons aged 65 years and older. Healthy People 2010 data reflects persons aged 65 to 74 years.

In San Diego County, according to the 2008 Behavioral Risk Factor Surveillance System (BRFSS), 8.0% of adults aged 65 years and older have had all of their natural teeth extracted.

Note: 2009 data not available.

**Local Data Source:** Centers for Disease Control and Prevention, "2008 Behavioral Risk Factor Surveillance System (BRFSS)," <a href="http://www.cdc.gov/BRFSS/">http://www.cdc.gov/BRFSS/</a> (accessed 8/2012).

#### 21-5. Reduce periodontal disease.

#### **Target and National Baseline:**

Reduction in Periodont Objective Disease in Adults Aged to 44 Years	Reduction in Periodontal	1988–94 Baseline	2010 Target
	Disease in Adults Aged 35	Percent	
21-5a.	Gingivitis	48	41
21-5b.	Destructive periodontal disease	22	14

**National Data Sources:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

21-6. Increase the proportion of oral and pharyngeal cancers detected at the earliest stage.

Target: 51 percent.

National Baseline: 36 percent of oral and pharynge-

al cancers (stage I, localized) were

detected in 1990-95.

**National Data Source:** Surveillance, Epidemiology, and End Results (SEER), NIH, NCI.

**Local Data:** In San Diego County, 32% of oral and pharyngeal cancers were detected at the earliest stage from 2002 to 2008.

Note: 2009 data not available.

**Local Data Source:** Surveillance, Epidemiology, and End Results (SEER), NIH, NCI. http://seer.cancer.gov/statfacts/html/oralcav.html (accessed 09/2012).

# 21-7. Increase the proportion of adults who, in the past 12 months, report having had an examination to detect oral and pharyngeal cancers.

Target: 20 percent (age-adjusted).

**National Baseline:** 13 percent of adults aged 40 years and older reported having had an oral and pharyngeal cancer examination in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 21-8. Increase the proportion of children who have received dental sealants on their molar teeth.

#### **Target and National Baseline:**

	Increase in Children Re- ceiving Dental Sealants on Their Molar Teeth	1988–94 Baseline	2010 Target
		Percent	
21-8a.	Children aged 8 years	23	50
21-8b.	Adolescents aged 14 years	15	50

**National Data Sources:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

## 21-9. Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water.

Target: 75 percent.

**National Baseline:** 62 percent of the U.S. population was served by community water

systems with optimally fluoridated water in 1992.

**National Data Source:** CDC Fluoridation Census, CDC, NCCDPHP.

**Local Data:** In San Diego County, approximately 37-39% of the population is served by optimally fluoridated water. Currently efforts are being made to increase fluoridation which would increase optimal fluoridation to 80% of the County.

## 21-10. Increase the proportion of children and adults who use the oral health care system each year.

Target: 56 percent.

**National Baseline:** 44 percent of persons aged 2 years and older in 1996 visited a dentist during the previous year.

**National Data Source:** Medical Expenditure Panel Survey (MEPS), AHRQ.

**Local Data:** In San Diego County, according to the 2009 California Health Interview Survey, 70.3% of persons aged 2 years and older had a dental visit in the preceding 12 months.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2003 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 9/2012).

## 21-11. Increase the proportion of long-term care residents who use the oral health care system each year.

Target: 25 percent.

**National Baseline:** 19 percent of all nursing home residents received dental services in 1997.

National Data Source: National Nursing Home Sur-

vey (NNHS), CDC, NCHS.

Local Data: No local data available.

#### 21-12. Increase the proportion of lowincome children and adolescents who received any preventive dental service during the past year.

Target: 66 percent.

**National Baseline:** 25 percent of children and adolescents under age 19 years at or below 200 percent of the Federal poverty level received any preventive dental service in 1996.

**National Data Source:** Medical Expenditure Panel Survey (MEPS), AHRQ.

Local Data: San Diego County data are not directly comparable to Healthy People data. This is because San Diego County data reflects children aged 2 to 11 and adolescents aged 12 to 17 and percents are calculated separately. Healthy People 2010 data reflect persons under the age of 19.

In San Diego County, according to the 2009 California Health Interview Survey, 85.1% of low-income youth (0-199% FPL) aged 2 through 11 years, had a dental visit in the preceding 12 months.

In San Diego County, according to the 2009 California Health Interview Survey, 87.8% of low-income youth (0-199% FPL) aged 12 through 17 years, had a dental visit in the preceding 12 months.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 9/2012).



## 21-13. Increase the proportion of school-based health centers with an oral health component.

**Target and National Baseline:** 

Objective	Increase the proportion of school-based health centers with an oral health component with the specified service	2001-02 Baseline	2010 Target
		Percent	
21-13a.	Dental sealants	12	15
21-13b.	Dental care	9	11

**National Data Sources:** School-based Health Care Census, National Assembly of School Based Health Care.

Local Data: No local data available.

21-14. Increase the proportion of local health departments and community-based health centers, including community, migrant, and homeless health centers, that have an oral health component.

Target: 75 percent.

**National Baseline:** 52 percent of local jurisdictions and health centers had oral health components in 1997.

**National Data Source:** Health Resources and Services Administration (HRSA), Bureau of Primary Health Care (BPHC).

**Local Data:** In San Diego County, 39% of community health center locations have an oral health component, and 100% of community health organizations have an oral health component.

21-15. Increase the number of States and the District of Columbia that have a system for recording and referring infants and children with cleft lips, cleft palates, and other craniofacial anomalies to craniofacial anomaly rehabilitative teams.

Target: 51 States and the District of Columbia.

**National Baseline:** 16 States and the District of Columbia had systems for recording and referring children with craniofacial anomalies in 2003.

**National Data Source:** Annual Synopses of State and Territorial Dental Public Health Programs, Association of State and Territorial Dental Directors (ASTDD).

**Local Data:** The State of California does not have a system for recording and referring infants and children with cleft lips, cleft palates, and other craniofacial anomalies to rehabilitative teams.

# 21-16. Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system.

**Target:** All States and the District of Columbia.

**National Baseline:** No States or the District of Columbia had oral and craniofacial health surveillance systems in 1999.

**National Data Source:** Annual Synopses of State and Territorial Dental Public Health Programs; Association of State and Territorial Dental Directors (ASTDD).

**Local Data:** Objective is not applicable for local jurisdictions.



# 21-17. Increase the number of health agencies that have a public dental health program directed by a dental professional with public health training.

#### **Target and National Baseline:**

Objective	Increase the number of Public Health programs that have a public dental health program directed by	2003 Baseline	2010 Target
	nealth program directed by a dental professional with public health training	Number	
	State (including the Dis- trict of Columbia) and local health agencies that serve jurisdictions of 250,000 or more persons	39	41
	Indian Health Service Areas and Tribal health programs that serve jurisdictions of 30,000 or more persons	9	9

**National Data Sources:** Annual Synopses of State and Territorial Dental Public Health Programs, Association of State and Territorial Dental Directors (ASTDD). Indian Health Service, Division of Oral Health.

#### **Local Data:**

**21-17a:** San Diego County does not meet the objective target at this time.

21-17b: No local data available.

#### References

- 1 U.S. Department of Health and Human Services. "Oral Health" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. (Washington, DC: U.S. Government Printing Office. November 2000), <a href="http://www.healthypeople.gov/2010/document/pdf/Volume2/21Oral.pdf">http://www.healthypeople.gov/2010/document/pdf/Volume2/21Oral.pdf</a>, (Accessed August 23, 2012).
- 2 National Institute of Dental Research. *Oral Health of United States. Adults: The National Survey of Oral Health in U.S. Employed Adults and Seniors: 1985–1986.* NIH Pub. No. 87-2868. Bethesda, MD: National Institutes of Health (NIH), 1986.
- 3 NIH. SEER Cancer Statistics Review 1973–1996. Bethesda, MD, 1999 National Cancer Institute, NIH. <a href="http://seer.cancer.gov/csr/1973">http://seer.cancer.gov/csr/1973</a> 1996/, (Accessed September 11, 2012).

#### SAN DIEGO COUNTY

Chapter 22

## Physical Activity & Fitness

Healthy People 2010 Goal: Improve health, fitness, and quality of life through daily physical activity.

People who regularly engage in exercise live longer than those who are sedentary, making physical fitness and regular exercise critical to a person's overall health and well-being. A Surgeon's General report released in the mid-1990s concluded that even a moderate level of physical activity reduces the risk of heart disease, diabetes, high blood pressure and colon cancer. <sup>2</sup>

Among those individuals with diseases and injuries to joints and bones, exercise improves muscle and heart function, and helps maintain skeletal and joint performance. This is especially important to people with arthritis, who comprise 20% of the adult population and who tend to be significantly more sedentary than people who do not have arthritis. Similarly, people with osteoporosis, or bone loss, benefit from exercise, especially weight-bearing activity.

From a public health perspective, increasing the number of individuals who engage in regular physical activity throughout life is an important goal. Less than 25% of U.S. residents engage in regular whole-body exercise, and even fewer (15%) perform it for at least 5 days for at least 30 minutes or more. Forty percent of the population are completely sedentary.

Community health promotion efforts should focus on promoting physical fitness as important throughout a person's life, and removing barriers that prevent

#### Benefits of Physical Activity

- Improved strength
- Better flexibility
- · Greater endurance
- Functional independence
- Heightened well-being & self-esteem
- · Improved heart and lung function
- Reduced bone loss
- Lower blood pressure

people from exercising, such as a lack of safe places to walk, or a lack of inexpensive recreational centers or parks. Also, health promotion efforts could include making group activities available in the community, which encourage regular physical activity in a form that includes group-wide positive reinforcement.

Some people are more likely to be sedentary than others. Women are more likely to be sedentary than men, older people are less physically active than younger ones, and adults who live in the Southern and Eastern states are less active than those living in the Midwest or West. Race/ethnicity disparities also exist: African Americans and Hispanics are more sedentary than Whites.

### Physical Activity in Adults

Since the greatest risk of death and disability is found among people who do not engage in regular physical activity, any amount of physical activity is preferred to no physical activity, and should be encouraged as part of a daily routine.

The greatest health benefits are associated with moderate physical activity for at least 30 minutes per day. However, even intermittent exercise, such as a brisk walk, is beneficial to health. Since most adults are unable to incorporate physical activity into their work-day, exercise should be encouraged as a leisure-time activity.



#### **HP 2010 Objectives**

22-1. Reduce the proportion of adults who engage in no leisure-time physical activity.

Target: 20 percent (age-adjusted).

**National Baseline**: 40 percent of adults aged 18 years and older engaged in no leisure-time physical activity in 1997 (age adjusted to the year 2000 standard population).

**National Data Source**: National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data**: San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the 2007 California Health Interview Survey, 13.6% of persons aged 18 years and older engaged in no leisure-time physical activity.

Note: 2009 data not available.

**Local Data Source**: UCLA Center for Health Policy Research, "2007 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 8/2012).



22-2. Increase the proportion of adults who engage in moderate physical activity for at least 30 minutes per day 5 or more days per week or vigorous physical activity for at least 20 minutes per day 3 or more days per week.

Target: 50 percent (age-adjusted).

National Baseline: 32 percent of adults aged 18 years and older engaged in moderate physical activity for at least 30 minutes per day 5 or more days per week or vigorous physical activity for at least 20 minutes per day 3 or more days per week in 1997 (age adjusted to the year 2000 standard population).

**National Data Source**: National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data**: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the 2007 California Health Interview Survey, 86.3% of persons engaged in some, moderate or vigorous physical activity.

Note: 2009 data not available.

**Local Data Source**: UCLA Center for Health Policy Research, "2007 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 8/2012).





22-3. Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness for at least 20 minutes per day 3 or more days per week.

Target: 30 percent (age-adjusted).

National Baseline: 23 percent of adults aged 18 years and older engaged in vigorous physical activity 3 or more days per week for 20 or more minutes per occasion in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the 2005 California Health Interview Survey, the percentage of persons who engaged in vigorous physical activity for at least 20 minutes per day 3 or more days per week was 15.4%.

Note: 2009 data not available.

**Local Data Source:** UCLA Center for Health Policy Research, "2005 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

## Muscular Strength, Endurance, and Flexibility

Improving the strength and flexibility of muscles, joints and bones are one of the key components to good physical fitness. Strength and endurance exercises reduce disability associated with chronic diseases, help maintain functional independence, and help protect the body from injury. Older people, who tend to be more sedentary and less well fit, benefit greatly from activities that improve strength and endurance.

Joint flexibility is an often overlooked aspect of fitness that should be incorporated into a daily routine. Lack of joint flexibility can lead to disability and a reduced quality of life.

Walking, stretching, T'ai Chi Chuon or yoga are excellent ways for increasing physical activity and joint flexibility, while weight training is helpful for strengthening both the muscular and skeletal systems.<sup>1</sup>

## Exercises to increase muscular strength, endurance, and flexibility

- Endurance activities such as:
  - Walking
  - Swimming
  - Biking
- Stretching exercises such as:
  - Stretching
  - T'ai Chi Chuon
  - Yoga
- Strength training such as:
  - Weight Training
  - Resistance Activities

#### **HP 2010 Objectives**

22-4. Increase the proportion of adults who perform physical activities that enhance and maintain muscular strength and endurance.

Target: 20 percent (age-adjusted).

National Baseline: 18 percent of adults aged 18 years and older performed physical activities that enhance and maintain strength and endurance 2 or more days per week in 1998 (age adjusted to the year 2000 standard population).

**National Data Source**: National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 22-5. Increase the proportion of adults who perform physical activities that enhance and maintain flexibility.

Target: 43 percent (age-adjusted).

National Baseline: 30 percent of adults aged 18 years and older did stretching exercises in the past 2 weeks in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

### Physical Activity in Children & Adolescents

As children reach adolescence and adulthood, many become sedentary. Promoting physical activity throughout childhood can establish a physically active lifestyle that carries into adulthood.

The decline in physical activity is more pronounced in girls than boys. This is partly because girls and boys have different recreational interests and goals for their physical fitness activities. There are also racial/ethnic disparities in physical activity: both African American and Hispanic children tend to watch more television than White children, and are at greater risk for a sedentary lifestyle.

Physical activity in youth offers many of the same benefits as for adults: better strength, cardiovascular health, weight management and regulation of blood pressure.

Schools can improve the health of the student population by offering a variety of fitness and exercise programs, and requiring at least some level of participation. They can also include physical education in the curriculum and promote participation in sports. Better quality programs have significant benefits to the health of children and adolescents.<sup>6</sup>

#### **HP 2010 Objectives**

22-6. Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes per day 5 or more days per week.

Target: 35 percent.

**National Baseline**: 27 percent of students in grades 9 through 12 engaged in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days in 1999.

**National Data Source**: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data**: In San Diego County, according to the 2005 Youth Risk Behavior Survey, 26.7% of youth in grades 9 through 12 in San Diego City schools reported that they engaged in moderate physical activity for 30 minutes or more on five or more of the past seven days. Moderate activity was defined as activity that did not make them sweat or breathe hard.

Note: 2009 data not available.

**Local Data Source**: Centers for Disease Control and Prevention, "2005 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/yrbss/SelHealthTopic.asp?Loc=SA">http://apps.nccd.cdc.gov/yrbss/SelHealthTopic.asp?Loc=SA</a> (accessed 9/2012).



22-7. Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

Target: 85 percent.

**National Baseline**: 65 percent of students in grades 9 through 12 engaged in vigorous physical activity 3 or more days per week for 20 or more minutes per occasion in 1999.

**National Data Source**: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect "20 or more minutes" of physical activity. San Diego County data reflect "30 or more minutes" of physical activity.

In San Diego County, according to the 2005 Youth Risk Behavior Survey, 64.6% of high school students enrolled in San Diego City schools engaged in physical activity that made them sweat or breathe hard for 30 or more minutes, on three or more of the past seven days.

Note: 2009 data not available.

**Local Data Source**: Centers for Disease Control and Prevention, "2005 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/yrbss/SelHealthTopic.asp?Loc=SA">http://apps.nccd.cdc.gov/yrbss/SelHealthTopic.asp?Loc=SA</a> (accessed 9/2008).

## 22-8. Increase the proportion of the Nation's public and private schools that require daily physical education for all students.

#### **Target and National Baseline:**

Objective	Increase in Schools Requiring ctive Daily Physical Activity for All Students	2000 Baseline*	2010 Target
		Percent	
<b>リノ-X</b> a	Middle and junior high schools	6.4	9.4
22-8b.	Senior high schools	5.8	14.5

**National Data Source**: School Health Policies and Programs Study (SHPPS), CDC, NCCDPHP.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data reflect grade level. San Diego County data reflect age groups.

**22-8a** - In San Diego County, according to the 2005 California Health Interview Survey, 90.8% of children aged 12 through 14 years reported that they were required to take physical education in school.

**22-8b** - In San Diego County, according to the 2005 California Health Interview Survey, 76.1% of children aged 15 through 17 years were required to take physical education in school.

Note: 2009 data not available.

**Local Data Source**: UCLA Center for Health Policy Research, "2005 California Health Interview Survey," http://www.chis.ucla.edu/ (accessed 9/2008).

## 22-9. Increase the proportion of adolescents who participate in daily school physical education.

Target: 50 percent.

**National Baseline**: 29 percent of students in grades 9 through 12 participated in daily school physical education in 1999.

**National Data Source**: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data**: In San Diego County, according to the 2009 Youth Risk Behavior Survey, 37.8% of high school students enrolled in San Diego City schools attended physical education (PE) classes daily in an average week when they were in school.

Local Data Source: Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx">http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx</a> (accessed 8/2012).

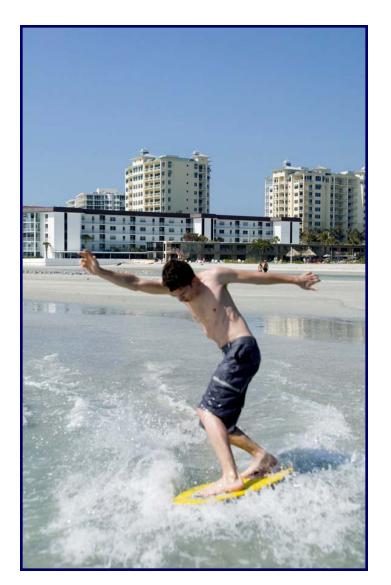
# 22-10. Increase the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active.

Target: 50 percent.

**National Baseline**: 38 percent of students in grades 9 through 12 were physically active in physical education class more than 20 minutes 3 to 5 days per week in 1999.

**National Data Source**: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

Local Data: No local data available.





## 22-11. Increase the proportion of adolescents who view television 2 or fewer hours on a school day.

Target: 75 percent.

**National Baseline**: 57 percent of students in grades 9 through 12 viewed television 2 or fewer hours per school day in 1999.

**National Data Source**: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data**: San Diego County data is not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 data use age-adjusted percent. San Diego County data reflect actual percent.

In San Diego County, according to the 2009 Youth Risk Behavior Survey, 30.7% of high school students enrolled in San Diego City schools watched 3 or more hours per day of TV on an average school day.

Local Data Source: Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx">http://apps.nccd.cdc.gov/YouthOnline/App/Default.aspx</a> (accessed 8/2012).

### Access

Since participating in regular physical activity is dependent on the availability of a place to do so, improving access to physical activity is an important public health goal. Lack of time, available facilities, and a safe environment are barriers to individuals trying to improve their level of physical fitness.

Among children and adolescents, lack of facilities, especially for sports, is a significant barrier to physical fitness. Increasing the availability of facilities in schools would be one way to increase exercise among school-aged individuals. Employers can also improve the health and well-being of employees by offering on-site programs, or by subsidizing membership in gyms or other facilities.

Communities can improve the availability of low cost physical fitness opportunities. In addition, improving the "walkability" of neighborhoods would offer great opportunities to walk or bicycle for health benefits.



#### **HP 2010 Objectives**

22-12 Increase the proportion of the Nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and after the school day, on weekends, and during summer and other vacations).

Target: 50 percent.

**National Baseline**: 35 percent of public and private elementary, middle/junior and senior high schools provided community access to their physical activity or athletic facilities in 2000.

**National Data Source**: School Health Policies and Program Study (SHPPS), CDC, NCCDPHP.

Local Data: No local data available.

## 22-13. Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs.

Target: 75 percent.

**National Baseline**: 46 percent of worksites with 50 or more employees offered physical activity and/or fitness programs at the worksite or through their health plans in 1998–99.

**National Data Source**: National Worksite Health Promotion Survey (NWHPS), Association for Worksite Health Promotion (AWHP) and OPHS, ODPHP.

### 22-14. Increase the proportion of trips made by walking.

#### **Target and National Baseline:**

Objective	Increase in Trips Made by Walking	1995 Baseline*	2010 Target
		Percent	
	Adults aged 18 years and older, trips of 1 mile or less	17	25
22-14b.	Children and adolescents aged 5 to15 years, trips to school of 1 mile or less	31	50

<sup>\*</sup>Age adjusted to the year 2000 standard population.

National Data Source: Nationwide Personal Trans-

portation Survey (NPTS), FHWA, DOT.

Local Data: No local data available.



### 22-15. Increase the proportion of trips made by bicycling.

#### **Target and National Baseline:**

Objective	Increase in Trips Made by Walking	1995 Baseline*	2010 Target
		Percent	
	Adults aged 18 years and older, trips of 5 miles or less	0.6	2.0
22-15b.	Children and adolescents aged 5 to15 years, trips to school of 2 miles or less	2.4	5.0

<sup>\*</sup>Age adjusted to the year 2000 standard population.

National Data Source: Nationwide Personal Trans-

portation Survey (NPTS), FHWA, DOT.

**Local Data**: No local data available.

#### References

1 U.S. Department of Health and Human Services. "Physical Activity and Fitness" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000. http://

<u>www.healthypeople.gov/2010/document/pdf/</u> <u>Volume2/22Physical.pdf,</u> (Accessed August 23, 2012).

- 2 U.S. Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, GA: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, 1996.
- 3 CDC. Prevalence of leisure-time physical activity among persons with arthritis and other rheumatic conditions—United States, 1990–91. *Morbidity and Mortality Weekly Report* 46 (18):389-393, 1997.
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Chapter 23

## Public Health Infrastructure

**Healthy People 2010 Goal:** Ensure that Federal, Tribal, State, and local health agencies have the infrastructure to provide essential public health services effectively.

Public health infrastructure describes the resources used for assessing, maintaining, and improving the health and well-being of all individuals in a society. Its responsibilities include preventing disease and injury, promoting healthy behaviors, assisting with disaster response and recovery, and ensuring quality of life and providing essential health services.<sup>1</sup>



Public health resources include the personnel who work for public health organizations, the health information that is collected, the systems in place which inform people and communities about health matters. The infrastructure has core functions which include: monitoring the health status of the community, developing health policy, enforcing health-related laws and regulations to ensure public health, providing high quality services, and conducting research for new health issues.<sup>1</sup>

#### Essential Public Health Services<sup>2</sup>

- 1. Monitor health status to identify community health problems
- 2. Diagnose and investigate health problems and health hazards in the community.
- 3. Inform, educate, and empower people about health issues.
- 4. Mobilize community partnerships to identify and solve health problems.
- 5. Develop policies and plans that support individual community health efforts.
- 6. Enforce laws and regulations that protect health and assure safety.
- 7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
- 8. Assure a competent public health and personal health care workforce.
- 9. Evaluate effectiveness, accessibility, and quality of personal and population -based health services.
- 10. Research for new insights and innovative solutions to health problems.

# Data and Information Systems

Surveillance systems collect health data on illness, injury and death from various sources. To be useful, these data must be collected, analyzed, and made available to public health organizations, policy makers, and the public in a timely manner. In addition, public health data must be accurate and the rights of individuals to privacy must be protected.

Infrastructure to perform these tasks must be continually maintained and improved. Increasing the use of information technology to enable electronic surveillance, and increasing the use of the Internet to collect and distribute data are two ways that public health infrastructure can become more efficient and effective.

In addition, it is important that public health staff receive appropriate training to use new systems. Public health staff should also received training in how to create information that is accurate and clear in order to inform public policy and to aid in health promotion efforts. Again, ensuring the safety and privacy of health data collected from individuals is essential.



#### **HP 2010 Objectives**

23-1. This objective was deleted by the Federal government at midcourse review.

23-2. (Not Developed) Increase the proportion of Federal, Tribal, State, and local health agencies that have made information available for internal or external public use in the past year based on health indicators related to Healthy People 2010 objectives.

**Potential National Data Source:** A proposed data source the Survey of Regionally Based Public Health Services/Infrastructure in Indian Country, Tribal Epidemiology Centers (Epi Centers), CDC, IHS.

**Local Data:** In San Diego County, the public has access to health indicator and surveillance data.

**Local Data Source:** County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, "Community Profiles," <a href="https://www.sdhealthstatistics.com">www.sdhealthstatistics.com</a> (accessed September 20, 2012).

23-3. Increase the proportion of all major national health data systems that use geocoding to promote nationwide use of geographic information systems (GIS).

Target: 100 percent.

National Baseline: 50 percent of major national health data systems recording resident location of individuals (city, county, street address, latitude/ and longitude in 2000.

**National Data Source:** National Center for Health Statistics (NCHS), CDC.

**Local Data:** In San Diego County, geocoding is used in some health data systems.

Local Data Sources: Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 2011.

#### 23-4. Increase the proportion of populationbased Healthy People 2010 objectives for which national data are available for all population groups identified for the objective.

Target: 100 percent.

**National Baseline:** 13 percent of the populationbased objectives had national data for all select population groups in 2004.

**National Data Source:** National Center for Health Statistics (NCHS), CDC.

Local Data: No local data available.

### 23-5. This objective was deleted by the Federal government at midcourse review.

## 23-6. Increase the proportion of Healthy People 2010 objectives that are tracked regularly at the national level.

Target: 100 percent.

**National Baseline:** 44 percent of measurable objectives, including their subobjectives, were tracked at least every 3 years in 2004.

National Data Source: National Center for Health

Statistics (NCHS), CDC.

Local Data: No local data available.

# 23-7. Increase the proportion of Healthy People 2010 objectives for which national data are released within 1 year of the end of data collection.

Target: 100 percent.

**National Baseline:** 36 percent of the objectives, including their subobjectives, measured by major data systems were tracked with data released within 1 year of the end of data collection in 2000.

National Data Source: National Center for Health

Statistics (NCHS), CDC.



### Workforce

Public health personnel are needed at all levels of government and across a diverse array of organizations. The workforce must be trained with up-to-date knowledge, and have the skills to deliver public health services effectively and efficiently. Continuing education and training should be part of the operating procedures for a public health system.



#### **HP 2010 Objectives**

23-8. (Not Developed) Increase the proportion of Tribal and local agencies that incorporate core competencies in the essential public health services into job descriptions and performance evaluations.

**Proposed National Data Source:** Profile of Local Health Departments (NPLHD), National Association of Country and City Health Officials.

Local Data: No local data available.

23-9. (Not Developed) Increase the proportion of Council on Education for Public Health (CEPH) accredited schools of public health, CEPH accredited academic programs, and schools of nursing (with a public health or community health component) that integrate core competencies in the essential public health services into the curricula.

**Proposed National Data Source:** Public Health Competencies Survey (PHCS), Council on Linkages in collaboration with American Schools of Public Health, Association of Teachers of Preventive Medicine, and the Quad Council.

Local Data: No local data available.

23-10. Increase the proportion of Tribal, State, and local public health personnel that receive continuing education consistent with the core competencies in the essential public health services.

#### **Target and National Baseline:**

Objective		2000 Baseline	2010 Target
		Percent	
23-10a.	Tribal public health personnel	Not Developed	
23-10b.	State public health personnel	13	14
23-10c.	Local public health personnel	15	17

**National Data Sources:** National Sample Survey of Registered Nurses (NSSRN), HRSA, BHPr

#### **Local Data:**

**23-10a,b:** Objective is not applicable for local jurisdictions.

23-10c: No local data available.

# Public Health Organizations and Prevention Research

Performance standards created from measurable objectives are important to the successful evaluation and improvement of public health agencies. Public health agencies can use these standards to guide efforts to create a health improvement plan for the State or community. This plan should be used by governmental agencies involved in health, human services, and education to define the vision for community health and to set priorities.



Prevention research is critical for improving the health of individuals and communities. Public health research funded by Federal, State, local agencies, as well as in academic institutions and private industry should be maintained. In addition, recruitment efforts to encourage future public health research, especially in prevention and health promotion should be increased.

#### **HP 2010 Objectives**

23-11. Increase the proportion of State and local public health systems that meet national performance standards for the essential public health services.

#### **Target and National Baseline:**

Objective	Increase the percent or num- ber of public health systems	Baseline (year)	2010 Target
	that use or meet the speci- fied standards	Percent	
	Using National Public Health Performance		
	Standards Program		
23-11a.	State public health systems	9*	35 <i>(#)</i>
		(2000)	
23-11b.	Local public health systems	12	50
25-110.		(2004)	
	Meet National Public Health Performance		
	Standards Program		
23-11c.	State public health systems	0	50
		(2004)	
23-11d.	Local public health systems	36	50
		(2004)	

<sup>\*23-11</sup>a is based on number, not percent

**National Data Source:** National Public Health Performance Standards Program, CDC, Office of the Chief of Public Health Practice.

23-12. Increase the proportion of Tribal, State (including the District of Columbia), and local health agencies that have implemented a health improvement plan and increase the proportion of local health jurisdictions that have a health improvement plan linked with their State plan.

#### Target and National Baseline:

Objective		Baseline (year)	2010 Target
		Percent	
23-12a.	Tribal agencies	Not Developed	
23-12b.	State and the District of Co- lumbia health agencies	78 (1997)	100
23-12c.	Local health agencies	32 (1992-93)	80
23-12d.	Local jurisdictions that have linked health improvement	Not Developed	

National Data Sources: National Profile of Local Health Departments (NPLHD), NACCHO; Profile of Local Public Health Agencies Study; National Association of County and City Health Officials (NACCHO); Association of State and Territorial Health Officials (ASTHO); IHS.

#### Local Data:

**23-12a,b:** Objective is not applicable for local jurisdictions.

23-12c,d: No local data available.



23-13. Increase the proportion of Tribal and State public health agencies that provide or assure comprehensive laboratory services to support essential public health services.

#### **Target and National Baseline:**

Ohiective	Increase proportion of juris- dictions that meet the de- fined standards/criteria for the specified area	2004 Baseline	2010 Target
		Percent	
23-13a.	Disease, Prevention, Control and Surveillance	90	98
23-13b.	Integrated data management	69	85
23-13c.	Reference and specialized testing	65	80
23-13d.	Environmental health and protection	31	70
23-13e.	Food safety	2	50
23-13f.	Laboratory improvement and regulation	94	99
23-13g.	Policy development	23	50
23-13h.	Emergency response	29	65
23-13i.	Public health related research	65	85
23-13j.	Training and education	85	90
23-13k.	Partnerships and communication	48	75

**National Data Source:** Comprehensive Laboratory Services Survey, Association of Public Health Laboratories (APHL).

**Local Data:** Objective is not applicable for local jurisdictions.



23-14. Increase the proportion of Tribal, State, and local public health agencies that provide or assure comprehensive epidemiology services to support the essential public health services.

### **Target and National Baseline:**

Objective		2001 Baseline	2010 Target	
Objective		Perc	ent	
D3-1/1a	State epidemiologists with for- mal training in epidemiology	58	80	
23-14b.	Tribal public health agencies	Not Dev	eloped	
23-14c.	State public health agencies	Not Developed		
23-14d.	Local public health agencies	Not Developed		

**National Data Source:** Epidemiology Capacity Assessment, Council of State and Territorial Epidemiologists (CSTE).

**Local Data:** 

**23-14a,d:** No local data available

**23-14b,c:** Objective is not applicable for local jurisdictions.

23-15. Increase the number of States (including the District of Columbia) that review and evaluate their public health laws using such tools as the Turning Point Model State Public Health Act and the Model State Emergency Health Powers Act.

#### **Target and National Baseline:**

	Increase the number of States (including the District of Co- Jumbia) that review and evalu-	2003 Baseline	2010 Target
	ate their public health law us- ing the specified tool	Perc	ent
23-15a.	Turning Point Model State Public Health Act	30	51
23-15b.	draft Model State Emergen- cy Health Powers Act	35	51

**National Data Source:** Center for Law and the Public's Health, Georgetown University Law Center and Johns Hopkins Bloomberg School of Public Health.

Local Data: No local data available.

23-16. This objective was deleted by the Federal government at midcourse review.

23-17. (Not Developed) Increase the proportion of Federal, Tribal, State, and local public health agencies that conduct or collaborate on population-based prevention research.

**Proposed National Data Source:** Survey of Regionally Based Public Health Services/Infrastructure in Indian Country, Tribal Epidemiology Centers (Epi Centers), CDC, IHS.

**Local Data:** In San Diego County, Public Health Services collaborates on population-based prevention research.



# References

1 U.S. Department of Health and Human Services. "Public Health Infrastructure" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000. <a href="http://www.healthypeople.gov/2010/document/pdf/">http://www.healthypeople.gov/2010/document/pdf/</a> Volume2/23PHI.pdf, (Accessed August 23, 2012).

2 Public Health Functions Steering Committee. Public Health in America, Fall 1994. <a href="http://www.health.gov/phfunctions/public.htm">http://www.health.gov/phfunctions/public.htm</a>, May 2008, (Accessed September 11, 2012).

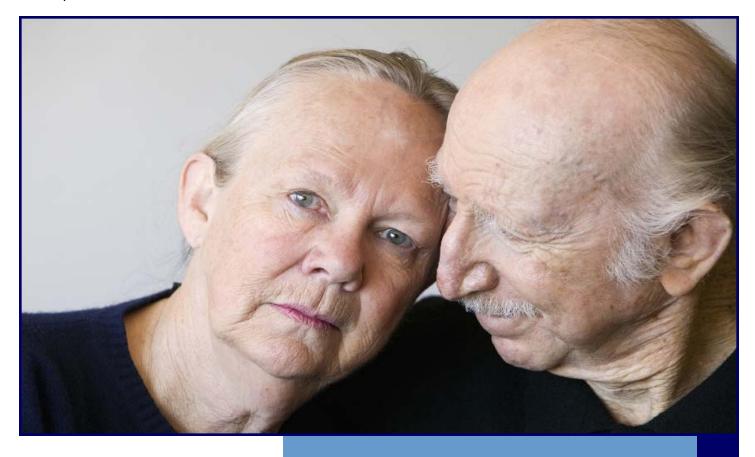
Chapter 24

# Respiratory Diseases

Healthy People 2010 Goal: Promote respiratory health through better prevention, detection, treatment, and education efforts.

Respiratory diseases such as asthma, chronic obstructive pulmonary disease (COPD) and obstructive sleep apnea (OSA) are a significant public health problem in the United States. Asthma and chronic obstructive pulmonary disease (COPD) are among the 10 leading causes of restricted activity, and asthma is the second most common cause of chronic disease in children.<sup>1</sup>

There are numerous behaviors and diseases that impact respiratory health and function, including smoking, tuberculosis, lung cancer, AIDS, pneumonia, and occupational lung diseases that are covered in detail in other chapters.

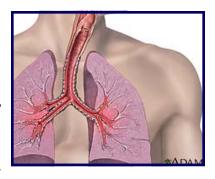


# Asthma

Asthma is a chronic inflammatory disease of the respiratory system which causes the airways of the lungs to constrict and become inflamed in response to certain triggers. It is the most common long-term disease in children but can also be found in adults.<sup>2</sup> In the United States, more than 22 million people are known to have asthma, 6 million of whom are children.<sup>3</sup>

Common symptoms of asthma include wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. "Asthma attacks" happen when a "trigger" causes the sides of the airways in

the lungs to swell, and the airways shrink. Less air gets into the lungs, and the person has difficulty breathing. Very severe attacks may require emergency care and can be fatal.



# What causes asthma symptoms to occur?<sup>4</sup>

- Allergens found in dust, fur, cockroaches, mold, and pollens
- Irritants such as cigarette smoke or air pollution
- · Certain medications such as aspirin
- Sulfites in food or drink
- Viral upper respiratory infections
- Exercise

# Risk Factors<sup>3,4</sup>

- Genetic factors
- Age children are more often diagnosed;
   older adults more often die due to asthma
- Gender boys are more likely to have asthma than girls; women are more likely to have asthma than men
- · Low birth weight
- Living in polluted areas
- Obesity
- Allergies
- Eczema

Asthma cannot be cured. However, most people with asthma are able to manage the disease with few, if any, symptoms. They can live normal, active lives with little disruption. People who experience symptoms of asthma should see their primary care doctor for evaluation, diagnosis, and treatment to control the symptoms.

# **Local Findings**

- In 2007, 36% of San Diego County residents with asthma had a written asthma management plan. –*chis*, 2007
- On average, 33 residents die from asthma every year. -Death, 2000-2009
- Residents of the Central Region were most likely to die of asthma. -Death, 2009

# **HP 2010 Indicators**

### 24-1. Reduce asthma deaths

#### **Target and National Baseline:**

Objective	Age Group	1999 Baseline	2010 Target
22,000.70	, igo <b>c</b> . oup	Rate per	r million
24-1a.	Children under age 5 years	1.7	0.9
24-1b.	Children aged 5-14 years	3.1	0.9
24-1c.	Adolescents and adults aged 15-34 years	5.6	1.9
24-1d.	Adults aged 35-64 years	15.5	8.0
24-1e.	Adults aged 65 years and older	69.5	47.0

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

#### Local Data:

**24-1a:** In San Diego County, there were too few asthma deaths to calculate a rate.

**24-1b:** In San Diego County, there were too few asthma deaths to calculate a rate.

**24-1c:** In San Diego County, there were too few asthma deaths to calculate a rate.

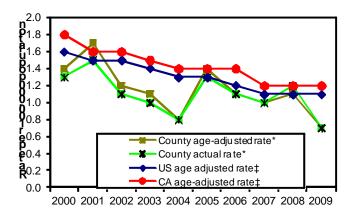
**24-1d:** In San Diego County, the rate of asthma death for persons aged 35-64 years was 6.5 per million in 2009.

**24-1e:** In San Diego County, the rate of asthma death for persons aged 65 years and older was 30.0 per million in 2009.

Local Data Sources: Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

**Detailed Local Data:** The County age-adjusted asthma death rate remained relatively stable from 2006 to 2008. In 2009, it was lower than the age-adjusted rates for the U.S. and California (Figure 1). Regional level data for 2009 is available by gender, race/ethnicity and age (Figure 2).

Figure 1. Asthma Deaths by Year



<sup>\*</sup> Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/12/2012: http://wonder.cdc.gov/cmf-icd10.html.

### 24-2. Reduce hospitalizations for asthma.

#### **Target and National Baseline:**

Ohiostivo	Ago Croup	1998 Baseline	2010 Target		
Objective	Age Group	Rate per 10,000			
24-2a.	Children under age 5 years	45.6	25.0		
174-7h	Children and adults aged 5 to 64 years*	12.5	7.7		
124-2c	Adults aged 65 years and older*	17.7	11.0		

<sup>\*</sup>Age adjusted to the year 2000 standard population.

**National Data Source:** National Hospital Discharge Survey (NHDS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because San Diego County data reflect actual rate per 10,000. Healthy People data reflect ageadjusted rates per 10,000 for sub-objectives b and

**24-2a:** In San Diego County, the rate of asthma hospitalizations for persons aged 5 and under was 19.8 per 10,000 in 2009.

**24-2b:** In San Diego County, the rate of asthma hospitalizations for persons aged 5 through 64 years was 5.5 per 10,000 in 2009.

**24-2c:** In San Diego County, the rate of asthma hospitalizations for persons aged 65 years and older was 14.2 per 10,000 in 2009.

**Local Data Sources:** Hospital Discharge Data, (CA OSHPD), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

# 24-3. Reduce hospital emergency department visits for asthma

### **Target and National Baseline:**

Objective	Age Group	1998 Baseline	2010 Target	
		Rate per	r 10,000	
24-3a.	Children under age 5 years	150.0	80.0	
24-3b.	Children and adults aged 5 -64 years	71.1	50.0	
24-3c.	Adults aged 65 years and older	29.5	15.0	

**National Data Source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Figure 2. Asthma<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Cei	ntral	So	uth	E	ast		orth and	Cou	ınty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	uajusteu rate
Total**	<5	§	5	0.8	6	1.2	<5	§	<5	§	<5	§	22	0.7	0.7
Gender															
Male	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	7	0.4	0.5
Female	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	15	0.9	0.9
Race/ Ethnicity															
White	<5	§	5	1.3	<5	§	<5	§	<5	§	<5	§	13	0.8	0.6
Black	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Hispanic	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
API‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	§
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<b>&lt;</b> 5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	<5	§	<b>&lt;</b> 5	§	<5	§	<5	§	<5	§	<5	§	11	0.7	
65+	<5	§	<5	§	<b>&lt;</b> 5	§	<5	§	<5	§	<b>&lt;</b> 5	§	11	3.0	

 $<sup>^{*}</sup>$  Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.

<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> Asthma Death refers to (underlying cause of death) ICD-10 codes J45-J46.

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because San Diego County data reflect only emergency department discharges. Healthy People data reflect emergency department visits.

**24-3a:** In San Diego County, the rate of asthmarelated emergency department discharges for persons aged 5 years and under was 89.4 per 10,000 during calendar year 2009.

**24-3b:** In San Diego County, the rate of asthmarelated emergency department discharges for persons aged 5 thru 64 years was 27.5 per 10,000 during calendar year 2009.

**24-3c:** In San Diego County, according to Emergency Department Discharge Data, the rate of asthmarelated emergency department discharges for persons aged 65 years and older was 14.6 per 10,000 during calendar year 2009.

Local Data Sources: Hospital Association of San Diego & Imperial Counties, Community Health Improvement Partners, and County of San Diego Health & Human Services Agency, Public Health Services Emergency Medical Services, Emergency Department Discharge Database 2009; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego Health & Human Services Agency, Public Health Services Community Health Statistics, 2011.

# 24-4. Reduce activity limitations among persons with asthma.

Target: 6 percent (age-adjusted).

**National Baseline:** 10 percent of persons with asthma experienced activity limitations in activity in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 24-5. Reduce the number of school or work days missed by persons with asthma due to asthma.

Target: 2 mean days (age-adjusted).

**National Baseline:** 6.1 was the mean number of school or work days missed among persons aged 5 to 64 years who report having an asthma attack in the past year in 2002 (age-adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the San Diego County data in the paragraph below reflect percent missing 2 or fewer days of school. Healthy People data use ageadjusted mean days missed of work or school.

In San Diego County, according to the 2009 California Health Interview Survey, 82.4% of those aged 5 through 17 missed 2 or less school days in the past 12 months due to asthma, among those who were ever diagnosed with asthma and currently have asthma.

San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the San Diego County data in the paragraph below reflect percent missing no days of work. Healthy People data use age-adjusted mean days missed of work or school.

In San Diego County, according to the 2009 California Health Interview Survey, 92% of those aged 18 through 64 missed no days of work in the past 12 months due to asthma, among those who currently have asthma.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

24-6. Increase the proportion of persons with asthma who receive formal patient education, including information about community and self-help resources, as an essential part of the management of their condition.

Target: 30 percent (age-adjusted).

**National Baseline:** 8.4 percent of persons with asthma received formal patient education in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 24-7. Increase the proportion of persons with asthma who receive appropriate asthma care according to the NAEPP guidelines.

### **Target and National Baseline:**

Objective	Increase the proportion of persons with asthma who	Baseline (year)	2010 Target
	receive the specified care	Perd	cent
24-7a.	Written asthma manage- ment plans from their health care provider	32 (2002)	38
24-7b.	instruction on how to use the inhaler properly (among those prescribed inhalers)	96.0 (2003)	98.8
24-7c.	Education about recognizing the early signs and symptoms of asthma episodes and how to respond appropriately, including instruction on peak flow monitoring for those who use daily therapy	68 (2003)	71
24-7d.	Medication regimens that prevent the need for more than one canister of shortacting inhaled beta agonists per month for relief of symptoms	80 (2003)	92

Objective	Increase the proportion of persons with asthma who	Baseline (year)	2010 Target
	receive the specified care	Perd	cent
24-7e.	Follow up medical care for long-term management of asthma after any hospitalization due to asthma	76 (2003)	87
24-7f.	Assistance with assessing and reducing exposure to environmental risk factors in their home, school, and work environments	42 (2002)	50

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because San Diego County data reflect actual percent. Healthy People data use age-adjusted percent.

**24-7a:** In San Diego County, according to the 2007 California Health Interview Survey, 36.3% of persons of all ages with asthma received a written asthma management plan.

Note: 2009 data not available.

**24-7b-f:** No local data available.

**Local Data Source:** UCLA Center for Health Policy Research, "2007 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 8/2012).

# 24-8. Increase the number of States (including District of Columbia) with an asthma surveillance system for tracking asthma cases, illness, and disability.

Target: 25 (number).

**National Baseline:** 19 jurisdictions had a system for tracking asthma cases, illness and disability in 2003.

**National Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

**Local Data:** Objective is not applicable for local jurisdictions.

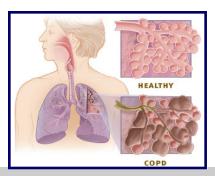
# Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease (COPD) is a disease that makes it hard to breathe. The disease is progressive, meaning it gets worse over time, and includes chronic bronchitis and emphysema.

In COPD, less air flows in and out of the airways for one or more of the following reasons: the airways and air sacs lose their elastic quality, the walls between many of the air sacs are destroyed, the walls of the airways become swollen, or the airways make more mucus than usual.<sup>5</sup>

The number one risk factor for COPD is smoking; most people who have COPD smoke or used to smoke. People with a family history of COPD are more likely to get the disease if they smoke. In addition to smoking, certain occupations are associated with higher risk of COPD, such as those who work with extended exposure to dust, ash, fumes, and gases. COPD occurs most often in older people and may affect up to 10% of people 65 years or older.

COPD cannot be cured, but treatment and changes in lifestyle behaviors, such as stopping smoking, can help slow the progress of the disease. Treatments for COPD include medicines, vaccines, pulmonary rehabilitation, oxygen therapy, surgery, and managing complications. The symptoms of COPD can be managed by avoiding lung irritants, preparing for emergencies, and continuing ongoing care.



# **Goals of COPD Treatment**

- Relieve symptoms
- Slow progress
- Improve activity level tolerance
- Prevent and treat complications
- Improve overall health

Primary care physicians are in positions to provide important care to COPD patients. They can also be critical to COPD prevention by counseling patients about the dangers of smoking.



# **Local Findings**

- In 2009, 916 people died of COPD.
   -Death, 2009
- Residents of the East Region were most likely to die of COPD.
   -Death, 2009
- In 2009 the COPD death rate was 80.0 per 100,000 residents aged 45 and older in San Diego County.

  Death, 2009

# **HP 2010 Indicators**

# 24-9. Reduce the proportion of adults whose activity is limited due to chronic lung and breathing problems.

Target: 1.9 percent (age-adjusted).

**National Baseline:** 2.5 percent of adults aged 45 years and older experienced activity limitations due to chronic lung and breathing problems in 1997 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

# 24-10. Reduce deaths from chronic obstructive pulmonary disease (COPD) among adults.

**Target:** 62.3 deaths per 100,000 adults aged 45 years and older (age-adjusted).

**National Baseline:** 123.9 deaths from COPD per 100,000 persons aged 45 years and older occurred in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

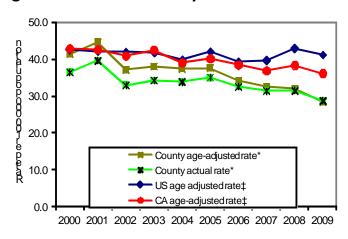
**Local Data:** San Diego County data are not directly comparable to the Healthy People objective. This is because San Diego County data include ICD-10 diagnosis code J47 (bronchiectasis); the Healthy People objective does not. In addition, the San Diego County indicator reflects an actual rate; the Healthy People objective reflects an age adjusted rate.

In San Diego County, the COPD death rate was 80.0 per 100,000 residents aged 45 and older in 2009.

Local Data Sources: Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

Detailed Local Data: The County age-adjusted COPD death rate has decreased slowly from 2000 to 2009. It has been slightly below the age-adjusted rates for the U.S. and California since 2002 (Figure 3). Regional level data for 2009 is available by gender, race/ethnicity and age (Figure 4).

Figure 3. COPD Deaths by Year



\* Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, EISB 12/12/2011; SANDAG, Current Population Estimates, 10/2010. ‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 8/12/2012: http://wonder.cdc.gov/cmf-icd10.html.



Figure 4. COPD<sup>†</sup> Deaths Among San Diego Residents by Region of Residence, 2009

		orth astal		orth ntral	Ce	ntral	So	uth	E	ast		orth and	Cou	inty	County age- adjusted rate*
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Total**	171	31.8	156	25.0	107	20.8	92	20.0	194	41.2	195	33.7	916	28.8	28.5
Gender															
Male	78	28.2	66	21.3	52	20.0	51	22.3	83	36.1	88	31.0	418	26.3	31.0
Female	93	35.7	90	28.7	55	21.7	41	17.7	111	46.0	107	36.2	498	31.2	26.4
Race/ Ethnicity															
White	154	48.7	136	35.2	83	60.6	64	56.6	178	59.4	181	54.3	797	50.3	34.5
Black	<5	§	8	39.6	13	19.6	<5	§	<5	§	<5	§	26	15.6	24.2
Hispanic	7	4.7	<5	§	7	3.2	22	8.8	5	4.9	8	4.9	53	5.5	13.1
API‡	<5	§	8	7.5	<5	§	<5	§	5	25.6	<5	§	27	8.0	9.5
Other‡	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	10	7.6	13.6
Age Group															
0-14	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
15-24	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	
25-64	13	4.8	15	4.2	17	6.1	12	5.2	31	12.4	17	5.7	105	6.2	
65+	158	259.4	141	174.4	90	198.0	80	165.3	163	282.3	178	237.9	811	220.2	

<sup>\*</sup> Rates per 100,000 population. Age-Adjusted (AA) rates per 100,000 2000 US standard population

Source: Death Statistical Master Files (CADPH), CoSD HHSA EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by CoSD, HHSA, Community Health Statistics, 12/12/2011.



<sup>\*\*</sup> Numbers may not add up to totals due to unknown or missing details.

<sup>†</sup> COPD Death refers to (underlying cause of death) ICD-10 codes J40-J44, J47

<sup>††</sup> API includes Asian, Pacific Islanders, Native Hawaiian. Other includes 2 or more races, Native American/Alaskan Native, American Indian, or other. Unknown not included.

<sup>§</sup> Rates not calculated for fewer than 5 events.

# Obstructive Sleep Apnea

Obstructive sleep apnea (OSA) is a common sleep disorder in which a person has intermittent periods of stopped breathing during sleep. OSA leads to fragmented sleep patterns that result in excessive daytime drowsiness. OSA can also increase symptoms of other lung diseases including asthma and COPD. Half of all persons with OSA also have high blood pressure.

Both children and adults can suffer from OSA. Infants with OSA are at higher risk for sudden infant death syndrome (SIDS).<sup>1</sup> OSA is more common in men over 50 years, and in post-menopausal women. At younger ages, African Americans have a higher rate of OSA symptoms than whites.<sup>1</sup>

### **Risk Factors**

- Certain shapes of the palate and jaw
- Large tonsils and adenoids in children
- Large neck or collar size
- Large tongue
- Narrow airway
- Nasal obstruction
- Recent weight gain
- Obesity

OSA symptoms can be managed. Avoiding alcohol or sedatives at bedtime, using dental devices at night to keep the jaw forward, and weight management are all techniques that may relieve symptoms of OSA. Surgery may also be an option to remove tonsils in children or excess tissue at the back of the throat in adults.

## **HP 2010 Indicators**

24-11. (Not Developed) Increase the proportion of persons with symptoms of obstructive sleep apnea whose condition is medically managed.

**Target and National Baseline:** 

Objective	Increase proportion of persons with excessive daytime sleepiness, loud snoring, and other signs associated with	1995 Baseline	2010 Target			
	obstructive sleep apnea who do the following	Percent				
24-11a.	Seek medical evaluation	Not Dev	Not Developed			
24-11b.	Receive follow up medical care for long-term man- agement of their condition	Not Dev	/eloped			

**Potential National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

24-12. Reduce the proportion of vehicular crashes caused by persons with excessive sleepiness.

Target: 1.7 percent.

**National Baseline:** 2.9 percent of fatal motor vehicle crashes had excessive sleepiness listed as a cause of the accident in 2000.

National Data Source: Fatality Analysis Reporting System (FARS), Department of Transportation (DOT), National Highway Traffic Safety Administration (NHTSA).

# References

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- "Respiratory Diseases", in *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000. <a href="http://www.healthypeople.gov/2010/document/pdf/volume2/24respiratory.pdf">http://www.healthypeople.gov/2010/document/pdf/volume2/24respiratory.pdf</a> (Accessed August 23, 2012)
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- 4 National Heart Lung and Blood Institute. Diseases and Conditions Index. "Asthma." <a href="http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma WhatIs.html">http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma WhatIs.html</a>, June 2012, (Accessed September 11, 2012).
- 5 National Heart Lung and Blood Institute. Diseases and Conditions Index. "COPD." <a href="http://www.nhlbi.nih.gov/health/">http://www.nhlbi.nih.gov/health/</a> <a href="http://www.nhlbi.nih.gov/health/">health-topics/topics/copd/</a>, June 2012, (Accessed September 11, 2012).
- 6 Schwartz, D.A., and Peterson, M.W. Occupational lung disease. *Disease-A-Month* 44:41-84, 1998.
- 7 National Institutes of Health, Medline Plus, "Obstructive Sleep Apnea" <a href="http://www.nlm.nih.gov/medlineplus/ency/article/000811.htm">http://www.nlm.nih.gov/medlineplus/ency/article/000811.htm</a>, (Accessed September 11, 2012).

## SAN DIEGO COUNTY

Chapter 25

# Sexually Transmitted Diseases

Healthy People 2010 Goal: Promote responsible sexual behaviors, strengthen community capacity, and increase access to quality services to prevent sexually transmitted diseases (STDs) and their complications.

More than 25 organisms have been found to cause sexually transmitted diseases (STDs), which are diseases spread primarily through sexual contact. The most common bacterial diseases are chlamydia, gonorrhea, and syphilis. The most common viral diseases are human papilloma virus, and genital herpes. In the United States alone, it is estimated that about 19 million new infections occur each year. In the United States alone, it is estimated that about 19 million new infections occur each year.

As a public health problem, STDs are difficult to due to a variety of biological, social, and behavioral issues. One biological issue is that many infections are asymptomatic, and may only cause problems after a significant lag time. Social and behavioral issues that contribute to the spread of STDs include poverty, substance abuse, sex work, risky sexual behaviors, and poor access to health care. In addition, the secrecy and stigmatization of sexuality contribute to the failure to prevent, screen, diagnose, and treat STDs as part of routine, general health.<sup>1</sup>

STDs can cause irreversible damage to the reproductive system, cause several types of cancer, and cause fetal and perinatal problems. STDs can facilitate the transmission of HIV between an HIV-positive person and his/her partner.<sup>1</sup>

STDs as a group share many risk factors, many of which can be prevented through lifestyle changes.

# STD Risk Factors<sup>1</sup>

- Risky sexual behavior including multiple partners and unprotected sex.
- Substance and alcohol abuse
- Poverty
- Lack of access to health care
- Sex work

In general, African Americans and Hispanics have higher rates of STDs than Whites. Also, men who have sex with men have higher STD rates than the general population.



# Bacterial STD Illness and Disability

Bacterial STDs include chlamydia, caused by *Chlamydia trachomatis*, gonorrhea, caused by *Neisseria gonorrhea*, and syphilis, caused by *Treponema pallidum*. Bacterial STDs are curable with antibiotics.

In 2009, over 1 million cases of Chlamydia were reported in the United States, making it the most commonly reported STD. Gonorrhea is the second most common STD, with over 300,000 cases reported in the United States in 2009.<sup>7</sup> The consequences of these diseases are greater for women than for men. In women, gonorrhea and chlamydia can lead to pelvic inflammatory disease, tubal infertility, ectopic pregnancy, and chronic pelvic pain.<sup>1</sup>

Syphilis is often called "the great imitator" because the symptoms are difficult to distinguish from other diseases. However, untreated syphilis can facilitate the transmission of HIV from an HIV-positive person to an uninfected partner. Congenital syphilis, when the STD is transmitted from an infected woman to her fetus, causes perinatal death up to 40% of the time. After birth, an infant with syphilis may have seizures, be developmentally delayed, or die.



# **HP 2010 Objectives**

# 25-1. Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections.

#### **Target and National Baseline:**

Objective	Reduction in Chlamydia tra- chomatis infections	1997 Baseline Reduction in Chlamydia tra- chomatis infections noted)					
		Perd	cent				
25-1a.	Females aged 15 to 24 years attending family planning clinics	5.0	3.0				
125-1h	Females aged 15 to 24 years attending STD clinics	12.2	3.0				
25-1c.	Males aged 15 to 24 years attending STD clinics	15.7	3.0				
25-1d.	Females aged 24 years or younger enrolled in a Na- tional Job Training Program	10.1 (2002)	6.8				

**National Data Source:** STD Surveillance System (STDSS), CDC, NCHHSTP; United States Department of Labor.

#### **Local Data:**

**25-1a.** In San Diego County, 13.2% of those tested were positive for Chlamydia, among females aged 15 to 24 years attending family planning clinics in 2009.

**25-1b.** In San Diego County, 12.6% of those tested were positive for Chlamydia, among females aged 15 to 24 years attending County of San Diego STD clinics, in 2009.

**25-1c.** In San Diego County, 12.3% of those tested were positive for Chlamydia, among males aged 15 to 24 years attending County of San Diego STD clinics in 2009.

**25-1d.** Local Data: San Diego County data are not directly comparable to the Healthy People 2010 objective. This is because the Healthy People 2010 target is a rate. San Diego County data point is the number of reported cases only.

In San Diego County, 20 cases of Chlamydia, among females aged 24 years and younger enrolled in a National Job Training Program, were reported in 2009.

Local Data Source: County of San Diego, Health and Human Services Agency, HIV/STD/Hepatitis Branch, Quest laboratory data—FPACT, 2009 Family Planning Annual Report; County of San Diego, Health and Human Services Agency, Public Health Services, Public Health Laboratory.

### 25-2. Reduce gonorrhea.

#### **Target and National Baseline:**

National Data Source: STD Surveillance System

	Reduction in new gonor-	1997 2010 Baseline Target			
	rhea cases	Rate per 100,000 population			
25-2a.	Total population	122	19		
25-2b.	Females aged 15 to 44 years	279	42		

(STDSS), CDC, NCHHSTP.

#### **Local Data:**

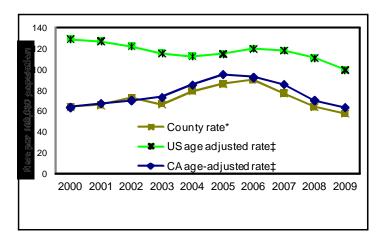
**25-2a:** In San Diego County, the rate of new gonorrhea cases for the total population was 57.7 per 100,000 in 2009.

**25-2b:** In San Diego County, the rate of new gonorrhea cases for females aged 15 through 44 years, was 42.5 per 100,000 in 2009.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/STD/Hepatitis Branch, Morbidity Database; SANDAG, Current Population Estimates, 10/2010. Prepared by

County of San Diego, Health & Human Services Agency, Community Health Statistics, 12/12/2011.

Figure 1. Estimated Gonorrhea† Incidence



\*Source: County of San Diego, Health & Human Services Agency, HIV, STD and Hepatitis Branch, Morbidity Database; SANDAG, Current Population. ‡ Source: CDC. Sexually Transmitted Disease Surveillance, 2004 and 2009.

# 25-3. Eliminate sustained domestic transmission of primary and secondary syphilis.

Target: 0.2 cases per 100,000 population.

**National Baseline:** 3.2 cases of primary and secondary syphilis per 100,000 population occurred in 1997.

**National Data Source:** STD Surveillance System (STDSS), CDC, NCHHSTP.

**Local Data:** In San Diego County, according to the HIV/STD/Hepatitis Branch, the rate of primary and secondary syphilis was 8.3 per 100,000 in 2009.

Local Data Source: County of San Diego, Health and Human Services Agency, HIV/STD/Hepatitis Branch, Morbidity Database; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 12/12/2011.

# Viral STD Illness and Disability

Viral STDs include genital herpes, Human papillomavirus, and HIV (described in Chapter 13). Viral STDs are not curable by antibiotics.

Genital herpes is caused by either the herpes simplex viruses type 1 (HSV-1) or type 2 (HSV-2). However, most genital herpes is caused by HSV-2. Herpes is transmitted between sexual partners when an infected person has an outbreak sore or ulcer that releases the virus. Herpes outbreaks can be painful, and severe in persons who have suppressed immune systems. People who have herpes often suffer from emotional distress about having the disease. Fatal infections can occur in babies who get herpes in utero. Herpes is not curable, but medical treatments can prevent or lessen the severity and frequency of outbreaks.<sup>5</sup>

# One in five adults in the United States has genital herpes!<sup>6</sup>

There are many strains of human papilloma virus (HPV), most of which cause no symptoms, or cause only genital warts. There are a few strains that are responsible for majority of cervical cancers in women. These strains can also cause less common cancers: cancers of the vulva, vagina, anus and penis. The danger of HPV infection is that it is usually asymptomatic, and the cancers it causes are also often asymptomatic until they are difficult to treat or cure.

# **HP 2010 Objectives**

25-4. Reduce the proportion of adults with genital herpes infection.

Target: 14 percent.

**National Baseline:** 17 percent of adults aged 20 to 29 years had genital herpes infection in 1988–94 (as measured by herpes simplex virus type 2 [HSV-2] antibody).

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

25-5. (Not Developed) Reduce the proportion of females with human papillomavirus (HPV) infection.

**Potential National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.



# Complications

Women suffer more severe consequences from STDs than men, including pelvic inflammatory disease, ectopic pregnancy, infertility, and chronic pelvic pain. They also are more susceptible to infection from men, than men are from women. This is possibly because male-to-female transmission is more efficient than transmission from females to males.

In pregnant women, STDs can cause health problems for the fetus or infant. STDs can be transmitted through the placenta and cause brain, spinal and sensory damage, or compromise the fetal immune system. They may also cause complications of pregnancy such as spontaneous abortion, stillbirth, premature rupture of the membranes, or preterm delivery.

Cancer is also now known to be a complication of some STDs. For example, HPV infections can cause reproductive cancers in women and penile cancer in men.



# **HP 2010 Objectives**

25-6. Reduce the proportion of females who have ever required treatment for pelvic inflammatory disease (PID).

Target: 5 percent.

**National Baseline:** 8 percent of females aged 15 to 44 years required treatment for PID in 1995.

**National Data Source:** National Survey of Family Growth (NSFG), CDC, NCHS.

**Local Data:** San Diego County data is not directly comparable to the Healthy People objective. This because San Diego County data reflects the actual rate of new cases reported per 100,000 population. Healthy People reflects the percent ever reporting treatment for PID.

In San Diego County, the actual rate of new cases of pelvic inflammatory disease was 5.7 per 100,000 population in 2009.

Local Data Source: County of San Diego, Health and Human Services Agency, HIV/STD/Hepatitis Branch, Morbidity Database; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 12/12/2011.

25-7. Reduce the proportion of childless females with fertility problems who have had a sexually transmitted disease or who have required treatment for pelvic inflammatory disease (PID).

Target: 15 percent.

**National Baseline:** 27 percent of childless females aged 15 to 44 years with fertility problems had a history of STDs or PID treatment in 1995.

National Data Source: National Survey of Family

Growth (NSFG), CDC, NCHS.

Local Data: No local data available.

25-8. Reduce HIV infections in adolescent and young adult females aged 13 to 24 years that are associated with heterosexual contact.

**Potential National Data Source:** HIV/AIDS Surveillance System, CDC, NCHSTP.

**Local Data:** In San Diego County, HIV is reportable and data have been collected locally since 2006. However, the data has not yet matured and hence cannot yet be released.

## 25-9. Reduce congenital syphilis.

Target: 1 new case per 100,000 live births.

**National Baseline:** 28 new cases of congenital syphilis per 100,000 live births were reported in 1997.

**National Data Sources:** STD Surveillance System (STDSS), CDC, NCHHSTP; National Vital Statistics System-Natality (NVSS-N), CDC, NCHS.

**Local Data:** In San Diego County, according to Maternal, Child, and Family Health Services and the STD/HIV/Hepatitis Branch, the rate of congenital syphilis was 26.7 per 100,000 live births in 2009.

Local Data Sources: CA, DHS, Center for Health Statistics, Birth Statistical Master Files, County of San Diego, Health & Human Services Agency Maternal, Child and Family Health Services; County of San Diego, Health and Human Services Agency, HIV, STD and Hepatitis Branch, Morbidity Database; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 12/12/2011.



# Personal Behaviors

Effective prevention of STDs at the individual level involves behavioral changes to eliminate or reduce the risk of becoming infected. These include abstinence or delay of intercourse (primarily among adolescents), reduced number of partners, use of physical barriers such as condoms, and chemical protectants such as microbicides.

# STDs are preventable!

- Practice abstinence
- Be faithful to one partner
- Use condoms and other barrier protective devices
- Get screened for STDs
- If female get regular exams that include a Pap smear and HPV screening and if young, get the HPV vaccine
- If infected seek and complete treatment



# **HP 2010 Objectives**

25-11. Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active.

### **Target and National Baseline:**

Objective	Increase proportion of student Objective in graded 9 through 12 who		2010 Target
,	report the following	Percent	
25-11a.	Never had sexual intercourse	50	56
25-11b.	If sexually experienced, are not currently sexually active	27	30
25-11c.	If currently sexually active, used a condom the last time they had sexual intercourse	58	65

**National Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

#### **Local Data:**

**25-11a:** According to the 2009 Youth Risk Behavior Survey conducted in San Diego City Schools, 60.8% of high school students reported they had not had sexual intercourse.

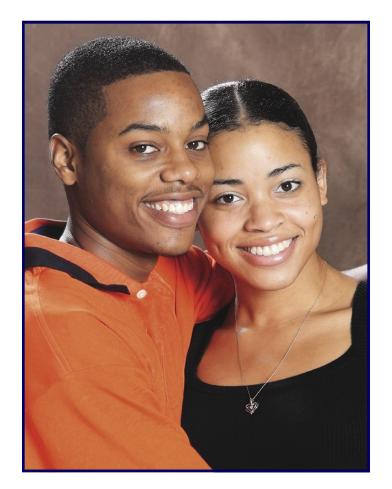
**25-11b:** San Diego County data are not directly comparable to the Healthy People 2010 objective. The Healthy People 2010 data reflect recent sexual activity amongst those who have ever had sex. San Diego data reflect those recently sexually active without mention of previous sexual intercourse.

According to the 2009 Youth Risk Behavior Survey conducted in San Diego City Schools, 72.3% of high school students reported they had not had sexual intercourse with one or more people during the past three months.

**25-11c:** According to the 2009 Youth Risk Behavior Survey conducted in San Diego City Schools, 65.5% of high school students who were sexually active had used a condom during their last sexual intercourse.

**Local Data Source:** Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://www.cdc.gov/HealthyYouth/yrbs/index.htm">http://www.cdc.gov/HealthyYouth/yrbs/index.htm</a> (accessed 8/2012).

25-12. This objective was deleted by the Federal government at midcourse review.





# Community Protection and Personal Health Services

School-based intervention and education programs can be effective in shaping adolescent sexual behavior that decreases STD risk. Mass media campaigns have also helped raise awareness of STDs and have brought about changes in behaviors, available information, and attitudes about STDs.

Medically, services for screening, identifying and treating individuals with STDs and their partners is critical in reducing STD spread. In particular, new diagnostic tests developed may be useful in quickly screening high-risk populations. Use of the HPV vaccine can dramatically decrease the rate of HPV infections and complications in adolescents.



# **HP 2010 Objectives**

25-13. Increase the proportion of Tribal, State, and local sexually transmitted disease programs that routinely offer hepatitis B vaccines to all STD clients.

Target: 90 percent.

National Baseline: 5 percent of STD programs (freestanding facilities with the capacity to diagnose and treat STDs) were State and local STD clinics that reported all clients were eligible to receive the hepatitis B vaccine in 1998.

**National Data Source:** Survey of STD Programs, National Coalition of STD Directors (NCSD).

**Local Data:** In San Diego County, 100% of the four County STD and HIV clinics routinely offer hepatitis B vaccines to all clients.

**Local Data Source:** County of San Diego, Health and Human Services Agency, HIV/STD/Hepatitis Branch.

25-14. This objective was deleted by the Federal government at midcourse review.

25-15. This objective was deleted by the Federal government at midcourse review.

25-16. Increase the proportion of sexually active females aged 25 years and under who are screened annually for genital chlamydia infections.

#### **Target and National Baseline:**

Objective	Increase proportion of sexually active females aged 25 years and under who are screened annually for genital Chlamydia infections that are enrolled in the specified care organizations	ually active females aged 25 years and under who are screened annually for genital Chlamydia infec-	2002 Baseline	2010 Target
the		Percent		
25-16a.	Commercial managed care organizations (MCOs)	25	62	
25-16b.	Medicaid managed care organizations (MCOs)	41	62	

**National Data Source:** National Survey on Family Growth .

Local Data: No local data available.

25-17. This objective was deleted by the Federal government at midcourse review.

25-18. This objective was deleted by the Federal government at midcourse review.

25-19. This objective was deleted by the Federal government at midcourse review.

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- 4 Ingraham NR. The value of penicillin alone in the prevention and treatment of congenital syphilis. Acta Derm Venereol 1951, 31 (suppl 24):60-88.
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- 7 Centers for Disease Control and Prevention. <u>Sexually Transmitted Disease Surveillance</u>, 2009. Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941-2009. Atlanta, GA: U.S. Department of Health and Human Services, November 2010.

Chapter 26

# Substance Abuse

Healthy People 2010 Goal: Reduce substance abuse to protect the health, safety, and quality of life for all, especially children.

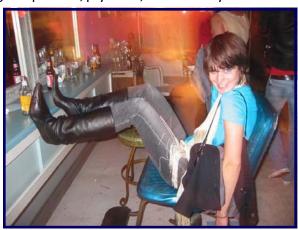
Substance abuse is a pervasive problem in all communities. Alcohol and other drug abuse has an economic cost in excess of \$275 billion which includes health care, motor vehicle crashes, lost productivity, crime and other adverse outcomes.<sup>1</sup>

Alcohol use alone is responsible for approximately 100,000 deaths each year, and is widely used. <sup>1</sup> Nearly half (44%) of adults can be defined as a current drinker, which means having had 12 or more drinks in a year. Among current drinkers, 46% report being intoxicated at least once during the year. <sup>1</sup> Alcohol use among adolescents is also common, and age at onset is a predictor of later alcohol addiction. <sup>1</sup> This is alarming because long-term alcohol abuse increases the risks for high blood pressure, heart disorders, certain cancers, cirrhosis of the liver, and stroke.

Other drugs frequently abused include marijuana, hashish, cocaine, methamphetamine, inhalants, and heroin. Drug dependence is a disorder which is chronic and relapsing. People who are addicted frequently abuse multiple drugs and alcohol, engage in risky sexual and criminal activities, and engage in other self-destructive behaviors. <sup>1</sup>

Injection drug users and those who have sex with them are at high risk for sexually transmitted diseases and HIV/AIDS, as well as Hepatitis B and C. Cocaine and other substances can trigger heart irregularities and heart

failure, as well as strokes. Further, long term drug abuse can trigger depression, psychosis, and sexual dysfunction. <sup>1</sup>



# Prevention Strategies for Drug Abuse Among Youth<sup>1</sup>

- Raise awareness of health, social, and legal consequences
- Educate parents and other influential adults to discuss the dangers of drug use
- Encourage parental supervision and monitoring
- Employ environmental approaches
- Provide alternative activities
- Mobilize & empower communities
- Build skills & confidence
- Strengthen families

# Adverse Consequences of Substance Use and Abuse

In addition to reducing alcohol and substance abuse, reducing the adverse outcomes that result from abuse is important. Alcohol and drug abuse is responsible for numerous motor vehicle crashes, particularly those which result in fatalities. Approximately one out of five traffic-related fatalities among children under the age of 16 years are alcohol-related. Injuries from such crashes contribute greatly to emergency department and other medical costs.

In addition to injuries that result from alcohol abuse are the medical consequences. Sustained alcohol consumption is the main cause of cirrhosis of the liver, which is one of the ten leading causes of death in the United States.<sup>1</sup>

Common drug induced-deaths include death due to drug psychosis, suicide, accidental overdose, and homicide.



# **HP 2010 Objectives**

26-1a. Reduce deaths caused by alcoholrelated motor vehicle crashes.

Target: 4.8 deaths per 100,000 population.

**National Baseline:** 5.3 deaths per 100,000 population occurred in 1998.

**National Data Source:** Fatality Analysis Reporting System (FARS), DOT, NHTSA.

Local Data: No local data available.

26-1b, 26-1c, 26-1d: These objectives were deleted by the Federal government at midcourse review.

#### 26-2. Reduce cirrhosis deaths.

**Target:** 3.0 deaths per 100,000 population (ageadjusted).

**National Baseline:** 9.5 cirrhosis deaths per 100,000 population occurred in 1998 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System (NVSS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to Healthy people data. This is because San Diego County data reflect an actual rate. Healthy people data reflect an age-adjusted rate.

In San Diego County, the rate of cirrhosis deaths was 9.8 per 100,000, in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG,

Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

## 26-3. Reduce drug-induced deaths.

**Target:** 3.2 death per 100,000 population (ageadjusted).

**National Baseline:** 9.6 drug-induced deaths per 100,000 population occurred in 1999 (age adjusted to the year 2000 standard population).

**National Data Source:** National Vital Statistics System-Mortality (NVSS-M), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to Healthy people data. This is because San Diego County data reflect an actual rate. Healthy people data reflect an age-adjusted rate.

In San Diego County, the rate of drug-induced deaths was 12.0 per 100,000 in 2009.

**Local Data Source:** Death Statistical Master Files (CA DPH), County of San Diego, Health & Human Services Agency, EISB; SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego, Health & Human Services Agency, Community Health Statistics, 2011.

# 26-4. Reduce drug-related hospital emergency department visits.

Target: 349,810 visits per year.

**National Baseline:** 542,250 hospital emergency department visits were drug-related in 1998.

**National Data Source:** Drug Abuse Warning Network (DAWN), SAMHSA.

Local Data: San Diego County data are not directly comparable to Healthy people data. San Diego County data reflect the rate of discharge per 100,000 population and includes only primary diagnosis. Healthy people data reflect number of visits.

In San Diego County, the rate of drug-related emergency department discharges was 188.7 per 100,000 for all persons, in calendar year 2009.

Local Data Sources: Hospital Association of San Diego & Imperial Counties, Community Health Improvement Partners, and County of San Diego Health & Human Services Agency, Public Health Services Emergency Medical Services, Emergency Department Discharge Database 2009 SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego Health & Human Services Agency, Public Health Services, Community Health Statistics, 2011.

## 26-5. (Not Developed) Reduce alcoholrelated hospital emergency department visits.

**Potential National Data Source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to Healthy people data. This is because Healthy people does not define the objective, but suggests the rate of ED visits. San Diego County data reflect the rate of emergency department discharges, not all visits and includes only primary diagnosis.

In San Diego County, the rate of alcohol-related hospital emergency department discharges was 56.9 per 100,000 in calendar year 2009.

Local Data Sources: Hospital Association of San Diego & Imperial Counties, Community Health Improvement Partners, and County of San Diego Health & Human Services Agency, Public Health Services Emergency Medical Services, Emergency Department Discharge Database 2009 SANDAG, Current Population Estimates, 10/2010. Prepared by County of San Diego Health & Human Services Agency, Public Health Services, Community Health Statistics, 2011.

26-6. Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol.

Target: 30 percent.

**National Baseline:** 33 percent of students in grades 9 through 12 reported riding during the previous 30 days with a driver who had been drinking alcohol in 1999.

**National Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data:** In San Diego County, according to the 2007 Youth Risk Behavior Survey, 27.7% of high school students enrolled in San Diego City schools had ridden in a car or other vehicle one or more times during the past 30 days that was driven by someone who had been drinking alcohol.

Note: 2009 data not available.

**Local Data Source:** Centers for Disease Control and Prevention, "2007 Youth Risk Behavior Surveillance System," <a href="http://apps.nccd.cdc.gov/yrbss/SelHealthTopic.asp?Loc=SA">http://apps.nccd.cdc.gov/yrbss/SelHealthTopic.asp?Loc=SA</a> (accessed 9/2012).



# 26-7. (Not Developed) Reduce intentional injuries resulting from alcohol- and illicit drug-related violence.

**Potential National Data Source:** National Crime Victimization Survey (NCVS), U.S. Department of Justice, Bureau of Justice Statistics.

Local Data: No local data available.

# 26-8. Reduce the cost of lost productivity in the workplace due to alcohol and drug use.

### **Target and National Baseline:**

	Reduce lost future earn- ings due to premature	1998 Baseline	2010 Target
Objective	ective deaths, illness, institution- alization or hospitalization and crime/victimization due to the following	Dollars per capita	
26-8a.	Due to alcohol abuse	\$468	\$435
26-8b.	Due to drug abuse	\$360	\$335

National Data Source: NIH, NIAAA.



# Substance Use and Abuse

# **HP 2010 Objectives**

26-9. Increase the age and proportion of adolescents who remain alcohol and drug free.

### **Target and National Baseline:**

Objective	Increase in Average Age of Objective First Use in Adolescents Aged 12 to 17 Years	Baseline (year)	2010 Target
		Average Age in Years	
26-9a.	Alcohol	13.0(2002)	16.1
26-9b.	Marijuana	13.6(2002)	17.4
26-9c.	Alcoholic beverages	19 (1998)	29
26-9d.	Illicit drugs	46 (1998)	56

National Data Sources: National Survey on Drug Use and Health (NSDUH) SAMHSA; Monitoring the Future Study (MTF), NIH, NIDA.

Local Data: No local data available.

# 26-10. Reduce past-month use of illicit substances.

### **Target and National Baseline:**

Objective	Increase non-use or Reduce proportion of adolescents Objective reporting use of specified substance during the past 30	2002 Baseline	2010 Target
	days	Perd	cent
	Increase proportion of adoles- cents not using alcohol or illicit drugs	78	91
26-10b.	Marijuana, 12-17 yrs (reduction)	8.2	0.7
26-10c.	Any illicit drug, adults (reduction)	7.9	3.2

National Data Source: National Survey on Drug Use

and Health (NSDUH) SAMHSA.



# 26-11. Reduce the proportion of persons engaging in binge drinking of alcoholic beverages.

#### **Target and National Baseline:**

Objective	gaging in binge arinking	Baseline (year)	2010 Target
	during specified time	Perd	cent
	Students during past 2 we	eks	
26-11a.	High school seniors	32 (1998)	11
26-11b.	College students	39 (1998)	20
	Adults and adolescents du	uring past month	
26-11c.	Adults aged 18 years and older	24.3 (2002)	13.4
26-11d.	Adolescents aged 12 to 17 years	10.7 (2002)	3.2

National Data Sources: Monitoring the Future Study (MTF), NIH, NIDA; National Survey on Drug Use and Health (NSDUH) SAMHSA.

Local Data: No local data available.

# 26-12. Reduce average annual alcohol consumption.

Target: 1.96 gallons.

National Baseline: 2.14 gallons of ethanol per per-

son aged 14 years and older were

consumed in 1997.

National Data Source: Alcohol Epidemiologic Data

System (AEDS), NIH, NIAAA.

Local Data: No local data available.

# 26-13. Reduce the proportion of adults who exceed guidelines for low-risk drinking.

### **Target and National Baseline:**

Objective	Reduction in Adults Ex- ceeding Guidelines for Low-Risk Drinking	1992 Baseline	2010 Target
		Percent	
26-13a.	Females	72	50
26-13b.	Males	74	50

**National Data Source:** National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), NIH, NIAAA.

Local Data: No local data available.

## 26-14. Reduce steroid use among adolescents.

#### **Target and National Baseline:**

Objective	Reduction in Steroid Use Among Adolescents in Past Year	1998 Baseline	2010 Target
		Percent	
26-14a.	8th graders	1.2	0.4
26-14b.	10th graders	1.2	0.4
26-14c.	12th graders	1.7	0.4

**National Data Source:** Monitoring the Future Study (MTF), NIH, NIDA.

Local Data: No local data available.

# 26-15. Reduce the proportion of adolescents who use inhalants.

Target: 2.2 percent.

**National Baseline:** 4.4 percent of adolescents aged 12 to 17 years used inhalants in the past year in 2002.

National Data Source: National Survey on Drug Use

and Health (NSDUH) SAMHSA.

# Risk of Substance Use and Abuse

Age, gender, race/ethnicity, and sexual orientation are all risk factors for alcohol and drug abuse. Adolescents and young adults are more likely to abuse alcohol and drugs, as are males. For example, nearly 15% of individuals 12 years and older reported binge drinking in the previous month; two-thirds of whom were male.<sup>1</sup>

Native Americans and Alaska Natives are more likely than Whites to abuse alcohol, and Whites and Hispanics are more likely to use alcohol or illicit drugs than African Americans. Gay men and lesbians are at an increased risk for alcohol and drug abuse, as are children of substance abusers.

The social environment can play a role in the prevention of substance use and abuse. Disapproval by adults and peers, and educational programs that emphasize the harm associated with substance use can reduce the likelihood of abuse by minors and young adults.



# **HP 2010 Objectives**

# 26-16. Increase the proportion of adolescents who disapprove of substance abuse.

### **Target and National Baseline:**

Objective	Increase in Adolescents Who Disapprove of the	1998 Base- line	2010 Target	
	following	Perd	cent	
	Having one or two alcoholic drir	nks nearly ever	y day	
26-16a.	8th graders	77	83	
26-16b.	10th graders	75	83	
26-16c.	12th graders	69	83	
	Trying marijuana or hashish	hish once or twice		
26-16d.	8th graders	69	72	
26-16e.	10th graders	56	72	
26-16f.	12th graders	52	72	

National Data Source: Monitoring the Future Study

(MTF), NIH, NIDA.

Local Data: No local data available.

# 26-17. Increase proportion of adolescents who perceive great risk associated with substance abuse.

#### **Target and National Baseline:**

Objective	Increase proportion of adoles- cents 12 –17 years perceiving great risk from:	2002 Baseline	2010 Target
		Percent	
126-172	Consuming ≥5 alcoholic drinks at one occasion 1x or 2x/week	38	50
26-17b.	Smoking marijuana 1x/month	32	36
26-17c.	Using cocaine 1x/month	51	57

**National Data Source:** National Survey on Drug Use and Health (NSDUH) SAMHSA.

# Treatment for Substance Abuse

Despite the well-known problem of substance abuse in the United States, the true gap between the number of persons who need treatment for substance abuse and the number of persons who are receiving treatment is unknown. Therefore, national efforts are being conducted to estimate the size of the gap, to develop strategies to improve capacity, and to eliminate access barriers for those in need of treatment. These strategies must address the needs of special populations, including adolescents, females, and the elderly.<sup>1</sup>



# **HP 2010 Objectives**

26-18. Increase the proportion of persons who need alcohol and/or illicit drug treatment and received specialty treatment for abuse or dependence in the past year.

### **Target and National Baseline:**

Objective	Increase proportion of persons aged 12 years and older who needed and received the speci- fied treatment	2002 Baseline	2010 Target
		Percent	
26-18a.	Illicit drug treatment	18	24
26-18b.	Alcohol & illicit drug treatment	10	16

**National Data Source:** National Survey on Drug Use and Health (NSDUH) SAMHSA.



# 26-19. (Not Developed) Increase the proportion of inmates receiving substance abuse treatment in correctional institutions.

**Proposed National Data Source:** Survey of Inmates in State and Federal Correctional Facilities and Survey of Inmates in Local Jails, Bureau of Justice Statistics, Department of Justice.

**Local Data:** San Diego County offers self-help, substance abuse education, process groups and group therapy to inmates while in County correctional facilities.

# 26-20. Increase the number of admissions to substance abuse treatment for injection drug use.

Target: 256,680 admissions.

National Baseline: 215,560 admissions for injection

drug use were reported in 1997.

National Data Source: Treatment Episodes Data

System (TEDS), OAS, SAMHSA.

**Local Data:** San Diego County data are not directly comparable to Healthy people data. San Diego County data reflect the percent of admissions. Healthy people data reflect number of admissions.

In San Diego County, 19% of all admissions at County-contracted substance abuse treatment facilities were for injection drug use for calendar year 2009.

**Local Data Source:** County of San Diego, Health & Human Services Agency, Behavioral Health Services, SanWITS, 2010.

# 26-21. Increase the proportion of persons who needed and received specialty treatment for alcohol abuse or dependence in the past year.

Target: 11.9 percent.

**National Baseline:** 8.3 percent of persons aged 12 and older needed and received specialty treatment for alcohol in 2002.

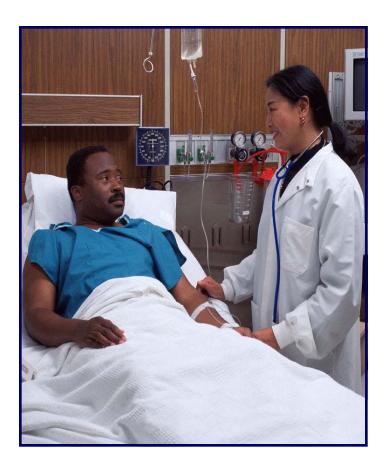
National Data Source: National Survey on Drug Use

and Health (NSDUH) SAMHSA.



# **State** and Local Efforts

State and local efforts need to focus on substance abuse prevention and treatment. Prevention programs need to be culturally appropriate, and must address reasons that individuals abuse drugs and alcohol. Minors should be a particular focus of effort. Community partnerships with public health organizations, faith-based and other non-profit organizations, schools, and law enforcement can all offer significant assistance at the local level.



# **HP 2010 Objectives**

26-22. (Not Developed) Increase the proportion of persons who are referred for follow-up care for alcohol problems, drug problems, or suicide attempts after diagnosis or treatment for one of these conditions in a hospital emergency department.

#### **Target and National Baseline:**

	Increase proportion of persons referred for follow-up care after ctive diagnosis or treatment for speci- fied problems in a hospital emer- gency department	referred for follow-up care after	1995 Baseline	2010 Target
Objective d		Perc	ent	
26-22a.	Alcohol or drug problems	Develop	mental	
26-22b.	Suicide attempt	Developmental		

**Proposed National Data Source:** National Hospital Ambulatory Medical Care Survey, (NHAMCS), CDC, NCHS.

Local Data: No local data available.

26-23. (Not Developed) Increase the number of communities using partnerships or coalition models to conduct comprehensive substance abuse prevention efforts.

**Proposed National Data Source:** National Anti-Drug Coalition Institute Registry and Annual Survey (NADCIRAS), SAMHSA, ONDCP, Community Anti-Drug Coalitions of America.

**Local Data:** The County of San Diego does use partnerships to conduct comprehensive substance abuse prevention.

26-24. Extend administrative license revocation laws, or programs of equal effectiveness, for persons who drive under the influence of intoxicants.

Target: 51 States and the District of Columbia.

**National Baseline:** 41 States and the District of Columbia had administrative license revocation laws for persons who drive under the influence of intoxicants in 1998.

National Data Source: DOT, NHTSA.

**Local Data:** In California, according to the California Department of Public Health, there is a statewide law requiring administrative license revocation, or programs of equal effectiveness, for persons who drive under the influence of intoxicants, which applies to San Diego County.

**Local Data Source:** California Department of Public Health, "Healthy California 2010 Report," <a href="http://www.cdph.ca.gov/data/indicators/goals/Pages/default.aspx/">http://www.cdph.ca.gov/data/indicators/goals/Pages/default.aspx/</a> (accessed 1/2009).

## Reference

1 U.S. Department of Health and Human Services. "Substance Abuse" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000. <a href="http://www.healthypeople.gov/2010/document/pdf/Volume2/26Substance.pdf">http://www.healthypeople.gov/2010/document/pdf/Volume2/26Substance.pdf</a>, (Accessed August 23, 2012).

# 26-25. Extend legal requirements for maximum blood alcohol concentration levels of 0.08 percent for motor vehicle drivers aged 21 years and older.

**Target:** 51 States and the District of Columbia.

**National Baseline:** 16 States had legal requirements for maximum blood alcohol concentration levels of 0.08 percent for motor vehicle drivers aged 21 years and older in 1998.

National Data Source: DOT, NHTSA.

**Local Data:** In California, according to the California Department of Public Health, legal requirements exist for maximum blood alcohol concentration levels of 0.08 percent for motor vehicle drivers aged 21 years and older, which applies to San Diego County.

**Local Data Source:** California Department of Public Health, "Healthy California 2010 Report," <a href="http://www.cdph.ca.gov/data/indicators/goals/Pages/default.aspx/">http://www.cdph.ca.gov/data/indicators/goals/Pages/default.aspx/</a> (accessed 1/2009).



Chapter 27

# Tobacco Use

Healthy People 2010 Goal: Reduce illness, disability, and death related to tobacco use and exposure to secondhand smoke.

Tobacco use, whether smoking cigarettes, cigars or chewing smokeless tobacco, is the leading preventable cause of death in the United States.<sup>1</sup>

# Quitting smoking greatly reduces the risk of dying prematurely! <sup>2</sup>

Nationally, tobacco use causes more than 430,000 deaths per year among adults<sup>3</sup>, and will be responsible for the premature deaths of 5 million people who are currently under 18 years.<sup>4</sup>

There are more than 4,000 chemicals in tobacco smoke; 43 of which are known carcinogens. The use of tobacco causes heart disease, chronic lung disease, and several types of cancer including lung and bladder.

Exposure to secondhand smoke can pose significant health risks as well. In addition to increased risks of heart disease, lung disease, and cancer, exposure to secondhand smoke increases the risk of lower respiratory tract infections in children. Additionally, asthma and other respiratory conditions are made worse by secondhand smoke. <sup>5</sup>

The prevalence of adult smoking declined substantially between the 1960s and the 1990s, but leveled off in the late 1990s to approximately 25%. Smoking usually begins in adolescence, and may increase the likelihood of other drug use. Over 80% of adults began

smoking as minors, and more than half smoked daily.<sup>1</sup>

Stopping adolescents from smoking has, and should continue to be, a major prevention effort as there is now overwhelming evidence that nicotine in tobacco is highly addictive. Smoking cessation for pregnant women also merits major prevention efforts. Pregnant women who smoke have an increased risk of spontaneous abortion, giving birth to low birth weight infants and losing their children to sudden infant death syndrome. 1,2

Preventing and reducing tobacco use has gradually become focused on population-based interventions instead of targeting individuals. Interventions include preventing smoking initiation, reducing exposure to secondhand smoke, and creating policy change that promotes smoking cessation.<sup>1</sup>

Research has shown that programs that address smoking and tobacco use in multiple ways have been most effective in reducing the use of cigarettes. Policy changes at the state level, including in California, have increased cigarette taxes and designated a portion to tobacco control programs. These have also been shown to be effective. In addition, the incorporation of antismoking campaigns have increased the success rate of legislative changes.<sup>1</sup>

# **T**obacco Use in Population Groups

There are several population groups that are more likely to use tobacco. For example, men are more likely to smoke than women. Native Americans, Alaskan Natives, and Hispanics are more likely than Whites to use tobacco. Asians and Pacific Islanders as a group are less likely to smoke, although there is considerable variation among Asian subgroups. <sup>1</sup>

Gay men and lesbians have been shown to smoke at higher rates than heterosexuals. Additionally, individuals with lower education are more likely to smoke than those with higher levels of education.<sup>1</sup>

There are considerable disparities in smoking rates among adolescents. Both White males and White females have a higher prevalence of smoking than African American adolescents. However, the prevalence of smoking among African American males has been increasing. <sup>1</sup>

Risk factors for the initiation of tobacco use among minors include low socioeconomic status, peer pressure, easy access to tobacco products, adult family smoking models, and lack of parental involvement. Individuals with low self-esteem, or who believe that tobacco use is beneficial in some way, also are more likely to initiate tobacco use.<sup>1</sup>



# **HP 2010 Objectives**

### 27-1. Reduce tobacco use by adults.

#### **Target and National Baseline:**

	Reduction in Tobacco Use	1998	2010
_	by Adults Aged 18 Years	Baseline*	Target
	and Older	Percent	
27-1a.	Cigarette smoking	24	12
27-1b.	Spit tobacco	2.5	0.4
27-1c.	Cigars	2.4	1.2

<sup>\*</sup>Age adjusted to the year 2000 standard population.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

**Local Data:** San Diego County data are not directly comparable to Healthy people data. This is because San Diego County data reflect actual percent. The Healthy People objective reflects age-adjusted percent.

**27-1a:** In San Diego County, according to the 2009 California Health Interview Survey, 35% of adults reported smoking 100 cigarettes in their lifetime and who now report smoking cigarettes every day or some days.

27-1b: No local data available.

27-1c: No local data available.

**Local Data Source:** UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <a href="http://www.chis.ucla.edu/">http://www.chis.ucla.edu/</a> (accessed 9/2012).

27-1d: This objective was deleted by the Federal government at midcourse review.

### 27-2. Reduce tobacco use by adolescents.

#### **Target and National Baseline:**

	Reduction in Tobacco Use by Students in Grades 9 Through 12	1999 Baseline (unless noted)	2010 Target
		Percent	
27-2a.	Tobacco products (past month)	40	21
27-2b.	Cigarettes (past month)	35	16
27-2c.	Spit tobacco (past month)	8	1
27-2d.	Cigars (past month)	18	8
27-2e.	Bidis (past month)	4 (2000)	2

**National Data Sources:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP; National Youth Tobacco Survey, American Legacy Foundation and Centers for Disease Control and Prevention (CDC).

#### **Local Data:**

**27-2a:** In San Diego County, according to the 2009 Youth Risk Behavior Survey, 14.1% of high school students enrolled in San Diego City schools had smoked cigarettes or cigars, used chewing tobacco, snuff or dip on one or more of the past 30 days.

**27-2b:** In San Diego County, according to the 2009 Youth Risk Behavior Survey, 11.7% of high school students enrolled in San Diego City schools had smoked cigarettes on one or more of the past 30 days.

27-2c: No local data available.

**27-2d**: In San Diego County, according to the 2009 Youth Risk Behavior Survey, 9.1% of high school students enrolled in San Diego City schools smoked cigars, cigarillos, or little cigars on one or more of the past 30 days.

27-2e: No local data available.

**Local Data Source:** Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://www.cdc.gov/HealthyYouth/yrbs/index.htm">http://www.cdc.gov/HealthyYouth/yrbs/index.htm</a> (accessed 8/2012).

# 27-3. Reduce the initiation of tobacco use among children, adolescents and young adults.

### **Target and National Baseline:**

Objective		2002	2010
		Baseline	Target
		Rate per 1,000 person- years exposure	
127-3a	Children and adolescents aged 12 to 17 years	100.1	81.2
27-3b.	Young adults aged 18 to 25 years	59.6	48.1

**National Data Source:** National Survey on Drug Use and Health (NSDUH), SAMHSA.

Local Data: No local data available.

# 27-4. Increase the average age of first use of tobacco products by adolescents and young adults.

#### **Target and National Baseline:**

Objective	Increase in Average Age of First Tobacco Use	2002	2010
		Baseline	Target
		Average age of first cigarette use	
27-4a.	Adolescents aged 12 to 17 years	12	14
27-4b.	Young adults aged 18 to 25 years	14	16

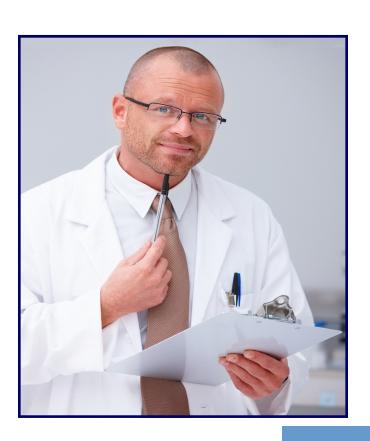
National Data Source: National Survey on Drug Use

and Health (NSDUH), SAMHSA.

## **Cessation** and Treatment

The majority of current smokers (70%) want to quit, but only 2.5% actually quit each year. Smokers who quit before they are 50 years old have half the risk of dying in the next 15 years when compared to people who continue to smoke past age 50.

Therefore, it is essential that tobacco control efforts continue to support the treatment and cessation of smoking. Research has shown that interventions such as counseling by a physician, individual and group counseling, telephone help lines, and nicotine replacement therapy can all be effective in assisting smokers to quit. Health insurance that covers the cost of smoking cessation efforts is also very important for smokers who wish to quit. <sup>1</sup>



## **HP 2010 Objectives**

## 27-5. Increase smoking cessation attempts by adult smokers.

Target: 75 percent (age-adjusted).

**National Baseline:** 41 percent of adult smokers aged 18 years and older stopped smoking for 1 day or longer because they were trying to quit in 1998 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 27-6. Increase smoking cessation during pregnancy.

Target: 30 percent.

**National Baseline:** 14 percent of females aged 18 to 49 years stopped smoking during the first trimester

of their pregnancy in 1998.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 27-7. Increase tobacco use cessation attempts by adolescent smokers.

Target: 64 percent.

**National Baseline:** 61 percent of ever-daily smokers in grades 9 through 12 had tried to quit

smoking in 2001.

**National Data Source:** Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

**Local Data:** In San Diego County, according to the 2009 Youth Risk Behavior Survey, 51.0% of high school students enrolled in San Diego City schools who were current smokers had tried to quit smoking during the past 12 months.

**Local Data Source:** Source: Centers for Disease Control and Prevention, "2009 Youth Risk Behavior Surveillance System," <a href="http://www.cdc.gov/">http://www.cdc.gov/</a> HealthyYouth/yrbs/index.htm (accessed 8/2012).

## 27-8. Increase insurance coverage of evidence-based treatment for nicotine dependency.

### **Target and National Baseline:**

Objective	Increase in Insurance Cov- erage of Evidence-Based Treatment for Nicotine	Baseline (year)	2010 Target
	Dependency	Perd	cent
27-8a.	Managed care organizations	75 (1997 -1998)	100
		Nun	nber
	Medicaid programs in States and the District of Columbia	24 (1998)	51

National Data Sources: Addressing Tobacco in Managed Care: 1997–98 Health Plan Survey (ATMC), Robert Wood Johnson Foundation; Health Policy Tracking Service, National Conference of State Legislators.

Local Data: No local data available.

27-8c: This objective was deleted by the Federal government at midcourse review.

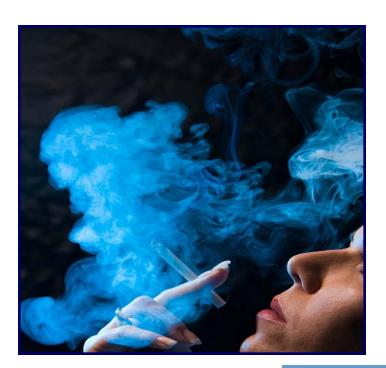


# Exposure to Secondhand Smoke

Secondhand smoke, also known as environmental tobacco smoke, refers to the smoke released from the combustion of tobacco products. It is as dangerous as direct smoking, and causes major diseases such as heart disease and cancer in nonsmokers. <sup>5,6</sup>

More than 125 million people are exposed at home, work, in vehicles, and in public places. Children are particularly at risk: one out of four children aged 3 to 11 years live with at least one smoker.

Unfortunately, smokers can be resistant to banning smoking inside the household. Laws that regulate smoking in the workplace and in public spaces have been widely successful, but it is important that tobacco control efforts also address secondhand smoke exposure in the home and in vehicles. <sup>5</sup>



## **HP 2010 Objectives**

27-9. Reduce the proportion of children who are regularly exposed to tobacco smoke at home.

Target: 6 percent.

**National Baseline:** 20 percent of children aged 6 years and under lived in a household where someone smoked inside the house at least 4 days per week in 1998.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

27-10. Reduce the proportion of nonsmokers exposed to environmental tobaccosmoke.

Target: 63 percent (age-adjusted).

**National Baseline:** 88 percent of nonsmokers aged 4 years and older had a serum cotinine level above 0.10 ng/mL in 1988–94 (age adjusted to the year 2000 standard population).

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

### 27-11. Increase smoke-free and tobaccofree environments in schools, including all school facilities, property, vehicles, and school events.

Target: 100 percent.

**National Baseline:** 37 percent of middle, junior high, and senior high schools were smoke-free and

tobacco-free in 1994.

National Data Source: School Health Policies and

Programs Study (SHPPS), CDC, NCCDPHP.

Local Data: No local data available.

# 27-12. Increase the proportion of persons covered by indoor worksite policies that prohibit smoking.

Target: 100 percent.

**National Baseline:** 69 percent of worksites with 50 or more employees had formal smoking policies that prohibited or limited smoking to separately ventilated areas in 1998–99.

**National Data Source:** Current Population Survey (CPS), U.S. Bureau of the Census and U.S. Bureau of Labor Statistics.

Local Data: No local data available.



## 27-13. Establish laws on smoke-free indoor air that prohibit smoking in public places and worksites.

#### **Target and National Baseline:**

		1998	2010
Objective		Baseline	Target
		Nun	nber
	States and the District of		
	Columbia		
27-13a.	Private workplaces	0	51
27-13b.	Public workplaces	10	51
27-13c.	Restaurants	1	51
27-13d.	Public transportation	15	51
27-13e.	Day care centers	20	51
27-13f.	Retail stores	6	51
27-13g.	Tribes	Developmental	
27-13h.	Territories	Developmental	
27-13i.	Bars	0	51

**National Data Source:** State Tobacco Activities Tracking and Evaluation System (STATE System), CDC, NCCDPHP, OSH.

**Local Data:** Objective not applicable to local jurisdictions.



# Social and Environmental Changes

There are several important social and environmental changes pertinent to tobacco control efforts. Restricting the availability of tobacco products to minors is central to tobacco control, since most adults started smoking before the age of 18 years. Although all States prohibit selling tobacco products to minors, stores still routinely sell products without requiring evidence of age. <sup>1</sup>

Other control efforts implemented over the years include warning labels on tobacco products, restriction of tobacco advertising, and anti-smoking and anti-secondhand smoke media campaigns directed at both adults and children. In addition, antismoking education incorporated into school curricula has been shown to be effective in both reducing smoking initiation and increasing the age at which smoking is initiated. <sup>1</sup>



## **HP 2010 Objectives**

27-14. Reduce the illegal sales rate to minors through enforcement of laws prohibiting the sale of tobacco products to minors.

	Jurisdictions With a 5 Per-	1998	2010
Objective	cent or Less Illegal Sales	Baseline	Target
	Rate to Minors	Nun	nber
D /-14a	States and the District of Columbia	0	51
27-14b.	Territories	0	7

#### **Target and National Baseline:**

**National Data Source:** State Synar Enforcement Reporting, SAMHSA, CSAP.

**Local Data:** Objective is not applicable to local jurisdictions.

27-15. Increase the number of States and the District of Columbia that suspend or revoke State retail licenses for violations of laws prohibiting the sale of tobacco to minors.

**Target:** 51 States and the District of Columbia.

**National Baseline:** 34 States with some form of retail licensure could suspend or revoke the license for violation of minors' access laws in 1998.

National Data Source: State Tobacco Activities Tracking and Evaluation System (STATE System), CDC, NCCDPHP, OSH.

**Local Data:** Objective is not applicable to local jurisdictions.

# 27-16. Reduce the proportion of adolescents and young adults who are exposed to tobacco advertising and promotion.

### **Target and National Baseline:**

Objective	Reduce the proportion of adolescents in grades 6 through 12 who are ex- posed to the following types of tobacco advertis-	2000 Baseline	2010 Target
	ing and promotion	Perd	cent
27-16a.	Internet	28	25
27-16b.	Magazine and newspaper	74	67

**National Data Source:** National Youth Tobacco Survey (NYTS), American Legacy Foundation.

Local Data: No local data available.

## 27-17. Increase adolescents' disapproval of smoking.

#### **Target and National Baseline:**

Objective	Increase proportion of adolescents in specified grades who disapprove of people smoking	1998 Baseline	2010 Target
	реорів зтокту	Percent	
27-17a.	8th grade	80	95
27-17b.	10th grade	75	95
27-17c.	12th grade	69	95

**National Data Source:** Monitoring the Future Study (MTF), NIH, NIDA.

Local Data: No local data available.

# 27-18. Increase the number of States and the District of Columbia, Territories, and Tribes with sustainable and comprehensive evidence-based tobacco control programs.

#### **Target and National Baseline:**

Objective	Increase the number of jurisdictions with sustainable and comprehensive evidence-based tobacco control programs	2002 Baseline	2010 Target
		Number	
27-18a.	States and the District of Columbia	5	51
27-18b.	Territories	Developmental	
27-18c.	Tribes	Developmental	

**National Data Source:** State Tobacco Activities Tracking and Evaluation System (STATE System), CDC, NCCDPHP, OSH.

**Local Data:** Objective is not applicable to local jurisdictions.

## 27-19. Eliminate laws that preempt stronger tobacco control laws.

Target: 0 States.

**National Baseline:** 28 States had preemptive tobacco control laws in the areas of clean indoor air, minors' access laws, or marketing in 1998.

**National Data Source:** State Tobacco Activities Tracking and Evaluation System (STATE System), CDC, NCCDPHP, OSH.

## 27-20. Reduce the sales-weighted average level of toxic chemicals in tobacco products sold in the United States.

#### **Target and National Baseline:**

Objective	Reduce the average level of specified substance in	Baseline (year)	2010 Target
	the smoke of cigarettes sold in the US	Nanogro cigai	
27-20a.	Tobacco-specific nitrosa- mines	121.5 (2003)	109.4
12 /-20h	Polyaromatic hydrocar- bon compounds (PAHs)	993.7 (2003)	894.3
		Micrograms per cig- arette	
27-20c.	Volatile organic com- pounds (VOCs)	707.0 (2002)	636.3

**National Data Sources:** Office on Smoking and Health, NCCDPHP, CDC; and Division of Laboratory Sciences, NCEH, CDC.

Local Data: No local data available.

# 27-21. Increase the average Federal and State tax on cigarettes and expand the number of States with higher smokeless tobacco taxes over the decade.

#### Target and National Baseline:

Objective	Increase in Combined Federal and Average State Tax	Baseline (year)	2010 Target
		Mean combined Federal and State cig- arette tax	
27-21a.	Cigarettes	\$0.63* (1998)	\$2.00
		Number of jurisdiction	
		that have increased	
		smokeless tobacco taxes	
27-21b.	Smokeless tobacco	3 (2000-01)	51 <sup>†</sup>

<sup>\*24</sup> cent Federal tax; 38.9 cent average State tax in 1998.

**National Data Source:** The Tax Burden on Tobacco, The Tobacco Institute. State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP, OSH.

**Local Data:** No local data available.

## References

- 1 U.S. Department of Health and Human Services. "Tobacco Use" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000. <a href="http://www.healthypeople.gov/2010/document/pdf/Volume2/27Tobacco.pdf">http://www.healthypeople.gov/2010/document/pdf/Volume2/27Tobacco.pdf</a>, (Accessed August 23, 2012).
- 2 HHS. The Health Benefits of Smoking Cessation. A Report of the Surgeon General. HHS Pub. No. (CDC) 90-8416. Atlanta, GA: HHS, PHS, CDC, NCCDPHP, OSH, 1990.
- 3 CDC. Cigarette smoking-attributable mortality and years of potential life lost—United States, 1984. Morbidity and Mortality Weekly Report 46(20):444-451, 1997.
- 4 CDC. Projected smoking-related deaths among youth— United States. Morbidity and Mortality Weekly Report 45:971-974, 1996.
- 5 U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.
- 6 California Environmental Protection Agency. *Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant*. Final report, September 29, 2005, approved by Scientific Review Panel on June 24, 2005 [cited 2006 Sep 27]. Available at: <a href="http://www.arb.ca.gov/regact/ets2006/app3partb.pdf">http://www.arb.ca.gov/regact/ets2006/app3partb.pdf</a>.

<sup>&</sup>lt;sup>†</sup>2.7 cent Federal tax in 1999; 7 States and the District of Columbia did not tax smokeless tobacco products in 1999.

Chapter 28

# Vision and Hearing

**Healthy People 2010 Goal:** Improve the visual and hearing health of the Nation through prevention, early detection, treatment, and rehabilitation.

Vision and hearing are the two most important senses used in interacting with the environment. They allow communication through language, whether spoken or read. They are critical to performing most work and recreational tasks, and are major influences on a person's quality of life. Whether sudden or chronic, loss of these senses can be debilitating and disabling. Preventing the loss of vision and hearing are important objectives for public health organizations.<sup>1</sup>



## Vision

In the United States, approximately 80 million residents have diseases that can result in blindness, while another 4 million have low vision, are legally blind, or visually impaired. Leading causes of blindness are diabetes, cataracts, glaucoma, and age-related macular degeneration. Early diagnosis and treatment can prevent vision loss in the majority (over 90%) of patients. 1

Most people with visual impairment are over 65 years of age, and most are women, but only because women live longer than men. African Americans have a higher risk of visual impairment than Whites of the same socioeconomic status. Hispanics have a higher risk of type 2 diabetes, and thus have a higher rate of vision-related complications. Asian children are at higher risk of myopia (nearsightedness) than other racial/ethnic groups.<sup>1</sup>

Blindness and vision loss can be prevented or halted with early detection and screening. Early intervention through regular examinations should be emphasized, because most eye diseases are without symptoms until vision is already lost.



## **HP 2010 Objectives**

28-1. Increase the proportion of persons who have a dilated eye examination at appropriate intervals.

**Target:** 58 percent (age-adjusted).

National Baseline: 55 percent of adults aged 18 years and older reported having a dilated eye exam within the past two years in 2002 (age adjusted to the year 2000 standard population).

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

28-2. Increase the proportion of preschool children aged 5 years and under who receive vision screening.

**Target:** 52 percent.

**National Baseline:** 36 percent of children aged 5 years and under had ever had their vision tested in 2002.

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

## 28-3. Reduce uncorrected visual impairment due to refractive errors.

**Target:** 92.9 rate per 1,000 population (age adjusted).

**National Baseline:** Rate of 110.7 per 1,000 persons aged 12 years and older had better-eye distance vision test at 20/30 or worse and improved to 20/25 or better after objective auto-refraction in the 1999-2000 survey cycle (age adjusted to the year 2000 standard population).

**National Data Source:** National Health National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

# 28-4. Reduce blindness and visual impairment in children and adolescents aged 17 years and under.

**Target:** 18 per 1,000 children and adolescents aged 17 years and under.

**National Baseline:** 24 per 1,000 children and adolescents aged 17 years and under were blind or visually impaired in 1997.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 28-5. Reduce visual impairment due to diabetic retinopathy.

**Target:** 40.9 rate per 1,000 population (diabetics) (age adjusted).

**National Baseline:** Rate of 45.8 per 1,000 persons aged 18 years and older with diabetes reported they have trouble seeing and were also told they had diabetic retinopathy in 2002.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 28-6. Reduce visual impairment due to glaucoma.

**Target:** 10.7 rate per 1,000 population (age adjusted).

**National Baseline:** Rate of 13.5 per 1,000 persons aged 45 years and older reported they have trouble seeing and were also told they had glaucoma in 2002.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

## 28-7. Reduce visual impairment due to cataract.

**Target:** 91.4 rate per 1,000 population (age adjusted).

**National Baseline:** Rate of 119.3 per 1,000 persons aged 65 years and older reported they have trouble seeing and were also told they had cataracts in 2002.

**National Data Source:** National Health Interview Survey (NHIS), CDC, NCHS.



## 28-8. Reduce occupational eye injury.

#### **Target and National Baseline:**

Objective	Reduce occupational eye injuries resulting in lost work days or emergency department treatment as specified	Baseline (year)	2010 Target
		Rate per 10,000 full- time workers	
28-8a.	Lost work days	4.8 (2002)	3.4
IJX-Xh	Treatment in emergen- cy departments	21.0 (1999)	14.7

National Data Sources: Survey of Occupational Injuries and Illnesses (SOII), Bureau of Labor Statistics (BLS), U.S. Department of Labor. National Electronic Injury Surveillance System (NEISS), Consumer Product Safety Commission (CPSC) and National Institute for Occupational Safety and Health (NIOSH), CDC.

Local Data: No local data available.

## 28-9. Increase the use of personal protective eye wear in recreational activities and hazardous situations around the home.

#### **Target and National Baseline:**

Objective	Increase proportion of persons of specified ages who wear eye protection when engaging in activities that can cause eye injury	2002 Baseline	2010 Target
		Percent	
28-9a.	Children aged 6-17 years	15	20
28-9b.	Adults aged 18 years and older	33	37

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.

Local Data: No local data available.

#### 28-10. Increase visual rehabilitation.

#### **Target and National Baseline:**

Objective	Increase rate of rehabili- tation use as specified by persons aged 18 years and older	2002 Baseline	2010 Target
		Rate per 1,000 population, age adjusted	
DX_105	Rehabilitation services by visually impaired	14.0	15.5
1/2 1/1h	Visual & adaptive devices by visually handicapped	22	26

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS.



## Hearing

Twenty-eight million people in the United States are deaf or have problems hearing. Deafness and hearing impairment can be a result of genetics, disease, medication, noise, or trauma to the ear. Hearing loss increases in prevalence and severity with age.

Hearing is a key factor in the development of spoken language during childhood. Thus, identifying hearing loss in children is very important. Many hearing problems result from common sources such as infections and noise or trauma.<sup>1</sup>

Middle ear infection, known as otitis media, is the most frequent reason for emergency department visits for children. Substantial health care costs are attached to treating these infections, and repeated infections impair normal hearing during a time that is critical for the acquisition of speech.

Sustained noise and trauma to the inner ear can cause irreversible hearing loss. Approximately 10 million people have already suffered permanent hearing loss, and another 30 million suffer from daily noise that is loud enough to cause injury. Certain occupations, such as carpentry, plumbing and mining have higher risks for hearing loss.

Hearing loss is a preventable condition, and public education can and should promote healthy behaviors to reduce noise-induced hearing loss. The development in new assistive technologies can improve the health of those who have already experienced hearing loss.<sup>1</sup>

## **HP 2010 Objectives**

28-11. Increase the proportion of newborns who are screened for hearing loss by age 1 month, have audiologic evaluation by age 3 months, and are enrolled in appropriate intervention services by age 6 months.

#### **Target and National Baseline:**

Objective	Increase proportion of children receiving services	2001 Baseline	2010 Target
	as specified	Perd	cent
28-11a.	Screening for hearing loss before age 1 month	66	90
28-11b.	Audiologic evaluation before age 3 months among infants with possible hearing loss	56	70
28-11c.	Enrollment of infants with confirmed hearing loss for intervention services before age 6 months	57	85

National Data Source: Directors of Speech and Hearing Programs in State Health and Welfare Agencies (DSHPSHWA), Early Hearing Detection and Intervention (EHDI) Program, CDC, NCBDDD.



## 28-12. Reduce otitis media in children and adolescents.

**Target:** 294 visits per 1,000 children and adolescents under age 18 years.

**National Baseline:** 344.7 visits per 1,000 children and adolescents under age 18 years were for otitis media in 1997.

**National Data Sources**: National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Local Data: No local data available.

28-13. Increase the proportion of persons with hearing impairments who have ever used a hearing aid or assistive listening devices or who have cochlear implants.

#### **Target and National Baseline:**

Objective	Increase use of assistive devises in those with hearing impairments as specified	2001 Baseline	2010 Target
		Rate per 1,000 population	
28-13a.	Adults aged 20 to 69 years with hearing loss who have ever used a	149.6	155.0
28-13b.	Persons who are deaf or very hard of hearing who have new cochlear implants	51	56
28-13c.	Adults aged 70 years and older with hearing loss who have ever used a hearing aid	Not Developed	
28-13d.	Adults aged 70 years and older with hearing loss who use assistive listening devices	Not Developed	

National Data Sources: National Health Interview Survey (NHIS), CDC, NCHS; National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

## 28-14. Increase the proportion of persons who have had a hearing examination on schedule.

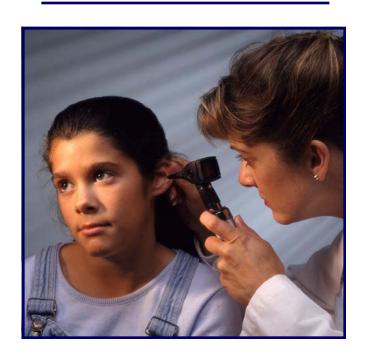
#### **Target and National Baseline:**

Objective	Increase in proportion of persons as specified who have had a hearing examination within the past 5 years	1999-2000 Baseline	2010 Target
		Percent	
28-14a.	Adults aged 20- 69 years	29	34
28-14b.	Adults aged 70 years and older	29	34
28-14c.	Adolescents aged 12-19 years	Not Developed	

**National Data Source:** National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Local Data: No local data available.

## 28-15. This objective was deleted by the Federal government at midcourse review.



### 28-16. Increase the use of ear protection devices.

#### **Target and National Baseline:**

Objective	Increase the rate of use of hearing protection devices (ear plugs, ear muffs) when exposed to loud sounds or noise	1999-2000 Baseline	2010 Target
		Rate per 1,000 population	
28-16a.	Adults aged 20 to 69 years	457.0	487.0
28-16b.	Adolescents aged 12 to 19 years	Not Developed	

National Data Source: National Health Interview

Survey (NHIS), CDC, NCHS

Local Data: No local data available.

28-17. Reduce the proportion of adolescents who have elevated hearing thresholds, or audiometric notches, in high frequencies (3, 4, or 6 kHz) in both ears, signifying noise-induced hearing loss.

Target: 34.7 rate per 1,000 population, aged 12 to 19 years.

**National Baseline:** Rate of 46.4 per 1,000 population had an audiometric notch in both ears in the 1988-94 survey cycle.

National Data Source: National Health and Nutri-

tion Examination (NHANES), CDC, NCHS.

Local Data: No local data available.

28-18. Reduce the proportion of adults who have elevated hearing thresholds, or audiometric notches, in high frequencies (3, 4, or 6 kHz) in both ears, signifying noise-induced hearing loss.

**Target:** 34.7 rate per 1,000 population, aged 20 to 69 years.

**National Baseline:** Rate of 46.4 per 1,000 population had an audiometric notch in both ears in the 1988-94 survey cycle.

**National Data Source:** National Health and Nutrition Examination (NHANES), CDC, NCHS.

Local Data: No local data available.

## References

1 U.S. Department of Health and Human Services. "Vision and Hearing" in *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000. <a href="http://www.healthypeople.gov/2010/document/pdf/Volume2/28Vision.pdf">http://www.healthypeople.gov/2010/document/pdf/Volume2/28Vision.pdf</a>, (Accessed August 23, 2012).